INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Weil-McLain
500 Blaine Street
Michigan City, Indiana 46360

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T091-6295-00020	
Issued by: Original signed by Paul Dubenetzky Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date:December 30, 2002 Expiration Date:December 30, 2007

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary gray iron foundry producing gray iron boilers.

Responsible Official:	Robert Grussing, President
Source Address:	500 Blaine Street, Michigan City, Indiana 46360
Mailing Address:	500 Blaine Street, Michigan City, Indiana 46360-2388
General Source Phone Number:	219-879-6561
SIC Code:	3321
County Location:	LaPorte
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) one (1) natural gas fired preheater, installed in 1991, rated at 12.976 million (MM) British thermal units (Btu) per hour, with a maximum metal throughput of 20 tons per hour, exhausting inside the building;

(b) four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4), each installed in 1991, each capable of melting a maximum of 5 tons per hour of metal, all exhausting inside the building;

(c) one (1) charge handling system, installed in 1991, processing a maximum of 20 tons of metal per hour, controlled by one (1) dust collector (ID No. 39-DC-4), exhausting through one (1) stack (ID No. 39-DC-4);

(d) one (1) electric holding furnace, installed in 1971, with a maximum molten metal storage capacity of 20 tons; the transfer of metal from the carrier ladle to the holding furnace exhausts through one (1) stack (ID No. 36-E-24);

(e) one (1) mold making operation (ID No. A-Line Molding) consisting of the following:

(1) one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 1984, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8), and one (1) 50 ton capacity bond silo, installed in 1984, controlled by one (1) bin vent;

(2) one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);

(3) one (1) metal pouring operation (ID No. A-Line Pouring), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, and a maximum throughput of 10 tons of core sand per hour, exhausting through stack 36-E-12;

(4) one (1) metal cooling operation (ID No. A-Line Cooling), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, and a maximum throughput of 10 tons of core sand per hour, exhausting through exhaust fans 32-E-2 and 32-E-1; and

(5) one (1) mold and casting shakeout operation (ID No. A-Line Shakeout), installed in 1964, with a maximum metal casting throughput of 24 tons per hour, and a maximum throughput of 10 tons of core sand per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);

(f) one (1) mold making operation (ID No. B-Line Molding) consisting of the following:

(1) one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 1987, controlled by one

(1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7), and one (1) 50 ton capacity bond silo, installed in 1987, controlled by one (1) bin vent;

(2) one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(3) one (1) metal pouring operation (ID No. B-Line Pouring), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, and a maximum throughput of 4 tons of core sand per hour, exhausting through stack 36-E-5;

(4) one (1) metal cooling operation (ID No. B-Line Cooling), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, and a maximum throughput of 4 tons of core sand per hour, exhausting partially through stack 36-E-6; and

(5) one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, and a maximum throughput of 4 tons of core sand per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(g) one (1) mold making operation (ID No. Floor Molding) consisting of the following:

(1) one (1) High Speed Continuous Sand Mixer (ID Mixer) and associated High Speed Continuous Sand Mixer hopper, each installed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by one (1) baghouse (ID 30-DC-6), exhausting through one (1) stack (ID No. 30-DC-6).

(2) one (1) metal pouring operation (ID No. Floor Pouring), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, exhausting inside the building;

(3) one (1) metal cooling operation (ID No. Floor Cooling), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, exhausting inside the building;

(4) one (1) mold shakeout operation (ID No. Floor Shakeout), installed in 1922, with a maximum metal casting throughput of 6 tons per hour, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour. The Floor Shakeout is uncontrolled and exhausts inside the building;

(h) one (1) casting knockout station (ID Knockout Station), installed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by one (1) baghouse (ID No. 8-DC-2), exhausting inside the building.

(i) one (1) Wheelabrator shot blast machine (ID No. Shot Blast), installed in 1990, with a maximum throughput of 31 tons of iron castings per hour, controlled by one (1) baghouse (ID No. 36-DC-8), exhausting inside the building;

(j) one (1) Chill Iron shot blast machine (ID No. Chill Iron Shot Blast), installed in 1972, with a maximum throughput of 120 pounds of castings per hour, controlled by one (1) baghouse (ID No. 8-DC-2), exhausting inside the building;

(k) one (1) paint spray booth (ID No. Spray Painting), installed in 1982, using a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards and a maximum of 10 gallons per year of paint thinner, with dry filters for particulate matter overspray control, exhausting through one (1) stack (ID No. 5-E-1);

(l) one (1) assembled boiler rating and certification operation, with a maximum boiler heat input rating of 7.216 million British thermal units (MMBtu) per hour, combusting natural gas, No. 2 distillate fuel oil, or propane;

(m) One (1) indoor scrap handling operation consisting of the following:

(1) one (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5);

(2) one (1) rotary reclaimer, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5);

(3) one (1) sand and metal conveyor, with maximum scrap metal and sand throughputs of 15 and 10

tons per hour, respectively, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5); and

(4) one (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5).

(n) one (1) pneumatically conveyed raw sand storage silo for the High Speed Continuous Sand Mixer, with a maximum sand storage capacity of 75 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5);

(o) two (2) 200 ton capacity core and mold sand silos (ID Nos. Silo #1 and Silo #2), both installed in 1950, each with a maximum sand throughput of 16.8 tons per hour, both controlled by one (1) baghouse (ID 37-1-DC-3), exhausting through one (1) stack (ID No. 37-1-DC-3);

(p) one Isocure core making operation consisting of the following:

(1) one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(2) one (1) Isocure core machine, installed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by one (1) natural gas fired afterburner (ID No. Afterburner J), rated at 1.4 MMBtu per hour, exhausting through one (1) stack (ID No. 37-1-E-2); and

(3) one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(q) one (1) Pepset core making operation consisting of the following:

(1) one (1) enclosed Pepset sand mixer, installed in 1979, consisting of the Pepset Large Core Mixer and the Pepset Small Core Mixer, with a maximum sand throughput of 6.0 tons per hour;

(2) one (1) Pepset core machine, installed in 1979, with a maximum throughput of 6.0 tons per hour of sand, exhausting inside the building; and

(3) one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(r) one (1) Warm Box core making operation consisting of the following:

(1) two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(2) three (3) Warm Box core machines (ID Warm Box Core Machines #1, #2, and #3), installed in 1971, 1976, and 1981, respectively, each with a maximum throughput of 1.73 tons per hour of sand, all exhausting inside the building; and

(3) one (1) 10 ton capacity Warm Box line sand hopper, installed in 1971, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(s) one (1) enclosed 10 ton capacity core and mold sand hopper, elevator, and conveyor, installed in 1975, with a maximum sand throughput of 16.8 tons per hour; and

(t) one (1) dip tank (ID No. Dip Tank Painting), installed in 1970, using a maximum of 5.8 pounds of coating per hour to coat metal parts, exhausting through one (1) stack (ID No. 3-E-1).

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
  (1) one (1) natural gas fired thermal oxidizer (ID No. Afterburner J), rated at 1.4 MMBtu per hour, controlling VOC and HAP emissions from the Isocure core machine, exhausting through one (1) stack (ID No. 37-1-E-2);

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(d) Paved and unpaved roads and parking lots with public access.

(e) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations. [326 IAC 6-3]

(f) Other categories with emissions below insignificant thresholds:
  (1) one (1) machining operation (ID No. Machining), modified in 1987, consisting of twenty eight (28) machines performing tapping, drilling, and reaming on the metal castings, with a maximum metal casting throughput of 20 tons per hour. Nine (9) machines are controlled by one (1) baghouse (ID No. 8-DC-2), two (2) machines are controlled by one (1) baghouse (ID No. 8-DC-1), and seventeen (17) machines are controlled by coolant. Potential PM and PM-10 emissions before control are less than twenty-five (25) pounds per day.
  (2) the following petroleum aboveground storage tanks (AST):
    (A) one (1) 2,000 gallon diesel fuel AST;
    (B) two (2) 1,000 gallon propane ASTs;
    (C) one (1) 275 gallon Dextron EF AST;
    (D) one (1) 275 gallon anti-freeze AST;
    (E) one (1) 275 gallon motor oil AST;
    (F) one (1) 275 gallon hydraulic oil AST;
    (G) two (2) 290 gallon Super Slik totes;
    (H) five (5) 300 gallon fuel oil ASTs;
    (I) one (1) 120 gallon propane AST;
    (J) one (1) 275 gallon hydraulic oil AST;
    (K) one (1) 275 gallon fuel oil AST;
    (L) one (1) 500 gallon propane AST;
    (M) one (1) 2,000 gallon fuel oil AST; and
    (N) one (1) 800 gallon foam AST.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

IDEM Northwest Regional Office Telephone Number: 1-888-209-8892
IDEM Northwest Regional Office Facsimile Number: 812-881-6745

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a

notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management

Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by

the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy any records that must be kept under the conditions of this permit;

(c) Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate estimated actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate estimated actual emissions of other regulated pollutants (as defined by 326 IAC 2-7-1) from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

Part 2 MACT Application Submittal Requirement

C.21 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]

(a) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).

(b) Notwithstanding paragraph (a), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:

(1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;

(2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or

(3) The MACT standard or standards for the affected source categories included at the source are promulgated.

(c) Notwithstanding paragraph (a), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) one (1) natural gas fired preheater, installed in 1991, rated at 12.976 million (MM) British thermal units (Btu) per hour, with a maximum metal throughput of 20 tons per hour, exhausting inside the building;
(b) four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4), each installed in 1991, each capable of melting a maximum of 5 tons per hour of metal, all exhausting inside the building;
(c) one (1) charge handling system, installed in 1991, processing a maximum of 20 tons of metal per hour, controlled by one (1) dust collector (ID No. 39-DC-4), exhausting through one (1) stack (ID No. 39-DC-4);
(d) one (1) electric holding furnace, installed in 1971, with a maximum molten metal storage capacity of 20 tons; the transfer of metal from the carrier ladle to the holding furnace exhausts through one (1) stack (ID No. 36-E-24);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) Total PM and PM10 emissions from the four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4), installed in 1991, shall not exceed 0.45 and 0.255 pound per ton of metal throughput, respectively. Total PM and PM10 emissions from the charge handling system, installed in 1991, shall not exceed 0.24 and 0.15 pound per ton of metal throughput, respectively.

(b) The throughput of metal to each of the following facilities shall not exceed 71,200 tons per twelve (12) consecutive month period, with compliance determined at the end of each month:

(1) all four (4) electric induction furnaces;
(2) the electric holding furnace; and
(3) the charge handling system

These emission limits and the metal throughput limit combined with potential emissions from the preheater, also installed in 1991, yield PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable. Any emissions from the electric holding furnace are accounted for in the emissions from melting in the electric induction furnaces.

D.1.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
Electric Induction Furnace #1	5.00	12.05
Electric Induction Furnace #2	5.00	12.05
Electric Induction Furnace #3	5.00	12.05
Electric Induction Furnace #4	5.00	12.05
Charge Handling	20.00	30.51

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM-10 testing on one (1) of the four (4) identical electric induction furnaces and the dust collector (ID No. 39-DC-4) controlling emissions from charge handling utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Particulate Matter (PM)

In order to comply with conditions D.1.1 and D.1.2, the dust collector for PM and PM10 control shall be in operation and control emissions from the charge handling system at all times when the charge handling system is in operation.

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the four (4) electric induction furnaces and the charge handling system (ID No. 39-DC-4) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector used in conjunction with the charge handling system, at least once per shift when the charge handling system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the dust collector is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Dust Collector Inspections

An inspection shall be performed each calender quarter of all bags controlling the charge handling system when venting to the atmosphere. A dust collector inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.10 Record Keeping Requirements

(a) To document compliance with Condition D.1.1(b), the Permittee shall maintain records of the metal throughput to the four (4) electric induction furnaces, the electric holding furnace, and the charge handling system for each month;

(b) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the four (4) electric induction furnaces and charge handling system stack exhaust (ID No. 39-DC-4) once per shift.

(c) To document compliance with Condition D.1.7, the Permittee shall maintain the following:

(1) Records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(e) one (1) mold making operation (ID No. A-Line Molding) consisting of the following:
- (1) one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 1984, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8), and one (1) 50 ton capacity bond silo, installed in 1984, controlled by one (1) bin vent;
- (2) one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);
- (3) one (1) metal pouring operation (ID No. A-Line Pouring), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, and a maximum throughput of 10 tons of core sand per hour, exhausting through stack 36-E-12;
- (4) one (1) metal cooling operation (ID No. A-Line Cooling), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, and a maximum throughput of 10 tons of core sand per hour, exhausting through exhaust fans 32-E-2 and 32-E-1; and
- (5) one (1) mold and casting shakeout operation (ID No. A-Line Shakeout), installed in 1964, with a maximum metal casting throughput of 24 tons per hour, and a maximum throughput of 10 tons of core sand per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) Total PM and PM10 emissions from the A-Line Muller and A-Line Holding Silo, both installed in 1984, shall not exceed 0.107 and 0.064 pound per ton of sand throughput, respectively.

(b) The throughput of sand to the A-Line Muller and A-Line Holding Silo shall not exceed 464,200 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The emission limits and the sand throughput limit, yield PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

D.2.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
A-Line Pouring	234.00*	60.23
A-Line Cooling	234.00*	60.23
A-Line Shakeout	234.00*	60.23
A-Line Muller & Sand Handling (including A-Line Holding Silo)	200.00	58.51

* Includes 24 tons per hour metal, 200 tons per hour mold sand, and 10 tons per hour core throughput.

(b) For purposes of determining compliance with the particulate emission limits pursuant to 326 IAC 6-3-2 for the A-Line Shakeout and the A-Line Muller & Sand Handling (including the A-Line Holding Silo), all exhausting through baghouse 36-1-DC-8, the allowable particulate emission rate from baghouse 36-1-DC-8 shall be limited to 118.74 pounds per hour.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM testing on the A-Line Pouring operation, and PM and PM-10 testing on the baghouse controlling the A-Line Shakeout operation, the A-Line Holding Silo, and the A-Line Muller, identified as 36-1-DC-8, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.5 Particulate Matter (PM)

In order to comply with Conditions D.2.1 and D.2.2, the baghouse (ID 36-1-DC-8) for PM and PM10 control shall be in operation and control emissions from the A-Line Shakeout operation and the A-Line Holding Silo and Muller at all times that the A-Line Shakeout operation and the A-Line Holding Silo and Muller are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the A-Line pouring and cooling operations and the stack exhaust for the baghouse (ID 36-1-DC-8) controlling the A-Line Holding Silo and Muller, and the A-Line Shakeout operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the A-Line Shakeout operation and the A-Line Holding Silo and Muller, at least once per shift when the A-Line Shakeout operation and the A-Line Holding Silo and Muller are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the A-Line Shakeout operation and the A-Line Holding Silo and Muller when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.10 Record Keeping Requirements

(a) To document compliance with Condition D.2.1(b), the Permittee shall maintain records of the sand throughput to the A-Line Muller and A-Line Holding Silo for each month;

(b) To document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the A-Line pouring and cooling operations and the stack exhaust for the baghouse controlling the A-Line Holding Silo and Muller, and the A-Line Shakeout operation once per shift.

(c) To document compliance with Condition D.2.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(f) one (1) mold making operation (ID No. B-Line Molding) consisting of the following:
- (1) one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 1987, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7), and one (1) 50 ton capacity bond silo, installed in 1987, controlled by one (1) bin vent;
- (2) one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);
- (3) one (1) metal pouring operation (ID No. B-Line Pouring), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, and a maximum throughput of 4 tons of core sand per hour, exhausting through stack 36-E-5;
- (4) one (1) metal cooling operation (ID No. B-Line Cooling), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, and a maximum throughput of 4 tons of core sand per hour, exhausting partially through stack 36-E-6; and
- (5) one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, and a maximum throughput of 4 tons of core sand per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The throughput of metal to each of the B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations, installed in a twelve month period from 1986 to 1987, shall not exceed 31,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The throughput of sand to the B-Line Muller and the B-Line Holding Silo shall not exceed 130,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) Total PM and PM10 emissions from the baghouse (36-1-DC-7) controlling the B-Line Shakeout operation, the B-Line Muller, and the B-Line Holding Silo shall not exceed 0.37 and 0.13 pound per ton of combined metal and sand throughput, respectively.

The metal throughput limit, the sand throughput limit, and the PM and PM10 emission limits, when combined with the emissions reductions from the removal of an existing floor molding operation in 1986, yield PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

D.3.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and

P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
B-Line Pouring	113.00*	52.51
B-Line Cooling	113.00*	52.51
B-Line Shakeout	113.00*	52.51
B-Line Muller & Sand Handling (including B-Line Holding Silo)	100.00	51.28

* Includes 9 tons per hour metal, 100 tons per hour mold sand, and 4 tons per hour core throughput.

(b) For purposes of demonstrating compliance with the particulate emission limits pursuant to 326 IAC 6-3-2 for the B-Line Shakeout and the B-Line Muller & Sand Handling (including the B-Line Holding Silo), and the Isocure sand mixer, the Isocure sand hopper and elevator, the Pepset sand hopper, the Warm Box mixers, and the Warm Box sand hopper listed in section D.7, all of which are controlled by the baghouse identified as 36-1-DC-7, the allowable particulate emission rate from the baghouse, identified as 36-1-DC-7, shall be limited to 142.77 pounds per hour.

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

(a) VOC emissions from the B-Line Pouring operation shall not exceed 0.14 pounds of VOC per ton of metal charged;

(b) VOC emissions from the B-Line Shakeout operation shall not exceed 1.2 pounds of VOC per ton of metal charged;

(c) The throughput of metal to each of the B-Line Pouring and B-Line Shakeout operations shall not exceed 31,500 tons per twelve (12) consecutive month period.

The metal throughput limit and the VOC emission limits yield VOC emissions that are less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.3.5 Particulate Matter (PM)

In order to comply with Conditions D.3.1 and D.3.2, the baghouse for PM and PM10 control shall be in operation and control emissions from the B-Line Shakeout operation and the B-Line Holding Silo and Muller at all times that the B-Line Shakeout operation and the B-Line Holding Silo and Muller are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.6 Visible Emissions Notations

(a) Visible emission notations of the B-Line pouring operation and the stack exhaust for the baghouse controlling the B-Line Holding Silo and Muller, and the B-Line Shakeout operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the B-Line Shakeout operation and the B-Line Holding Silo and Muller, at least once per shift when the B-Line Shakeout operation and the B-Line Holding Silo and Muller are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the B-Line Shakeout operation and the B-Line Holding Silo and Muller when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.3.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C

- Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.1(a) and (b) and D.3.3(b), the Permittee shall maintain records of the metal throughput to each of the B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations and the sand throughput to the B-Line Muller for each month;

(b) To document compliance with Condition D.3.6, the Permittee shall maintain records of visible emission notations of the B-Line pouring operation and the stack exhaust for the baghouse controlling the B-Line Holding Silo and Muller, and the B-Line Shakeout operation once per shift.

(c) To document compliance with Condition D.3.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.3.8, the Permittee shall maintain records of the results of the inspections required under Condition D.3.8 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1(a) and (b) and D.3.3(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(g) one (1) mold making operation (ID No. Floor Molding) consisting of the following:
- (1) one (1) High Speed Continuous Sand Mixer (ID Mixer) and associated High Speed Continuous Sand Mixer hopper, each installed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by one (1) baghouse (ID 30-DC-6), exhausting through one (1) stack (ID No. 30-DC-6).
- (2) one (1) metal pouring operation (ID No. Floor Pouring), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, exhausting inside the building;
- (3) one (1) metal cooling operation (ID No. Floor Cooling), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour, exhausting inside the building;
- (4) one (1) mold shakeout operation (ID No. Floor Shakeout), installed in 1922, with a maximum metal casting throughput of 6 tons per hour, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour. The Floor Shakeout is uncontrolled and exhausts inside the building;

(h) one (1) casting knockout station (ID Knockout Station), installed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by one (1) baghouse (ID No. 8-DC-2), exhausting inside the building.

(i) one (1) Wheelabrator shot blast machine (ID No. Shot Blast), installed in 1990, with a maximum throughput of 31 tons of iron castings per hour, controlled by one (1) baghouse (ID No. 36-DC-8), exhausting inside the building;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) Total PM and PM10 emissions from the Wheelabrator shot blast machine, installed in 1990, shall not exceed 0.70 and 0.42 pound per ton of metal throughput, respectively.

(b) The throughput of metal to the Wheelabrator shot blast machine shall not exceed 71,200 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The total PM and PM10 emissions from the High Speed Continuous Sand Mixer, constructed in 2001, and its associated sand hopper, constructed in 2001, that is controlled by the baghouse identified as 30-DC-6 that exhausts through stack ID No. 30-DC-6, shall not exceed 0.01 and 0.01 pound per ton of sand throughput, respectively.

(d) The throughput of sand to the High Speed Continuous Sand Mixer (ID Mixer), constructed in 2001, shall be limited to a maximum of 42,574 tons of sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

(e) The resin usage for the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 996,000 pounds of resin per 12 consecutive month period, with compliance determined at the end of each month.

(f) The VOC emissions from the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 0.05 pound per pound of resin.

For the emission unit installed in 1990, the emission limits in paragraph (a) above and the metal throughput limit in paragraph (b) yield total PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

For the High Speed Continuous Sand Mixer, its associated hopper, and the indoor scrap handling system (listed in section D.6), all installed in 2001, the PM and PM10 emission limits in paragraph (c) above, the sand throughput limit in paragraph (d) above, and the resin usage limit and VOC emission limit in paragraphs (e) and (f) above yield PM, PM10, and VOC emissions that are less than 25, 15, and 40 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

D.4.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
Floor Pouring	35.00*	41.32
Floor Cooling	35.00*	41.32
Floor Shakeout	35.00*	41.32
Knockout Station	15.00	25.16
High Speed Continuous Mixer & Floor Sand Handling	42.00	42.97
Wheelabrator Shot Blast	31.00	40.24

* Includes 6 tons per hour metal, 26 tons per hour mold sand, and 3 tons per hour core throughput.

D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

(a) The resin usage for the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 996,000 pounds of resin per 12 consecutive month period, with compliance determined at the end of each month.

(b) The VOC emissions from the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 0.05 pound per pound of resin.

The resin usage limit and the VOC emission limit in paragraphs (a) and (b) above will limit VOC emissions from the High Speed Continuous Sand Mixer to less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 54 and 60 months after issuance of this permit, in order to demonstrate compliance with Conditions D.4.1 and D.4.2, the Permittee shall perform PM and PM-10 testing on each of the baghouses controlling the High Speed Continuous Sand Mixer hopper, the Knockout Station and the Wheelabrator shot blast machine, identified as 30-DC-6, 8-DC-2 and 36-DC-8, respectively, and the Floor Shakeout operation using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.4.6 Particulate Matter (PM)

In order to comply with Conditions D.4.1 and D.4.2, the baghouses for PM and PM10 control shall be in operation and control emissions from the High Speed Continuous Sand Mixer hopper, the Knockout Station and the Wheelabrator shot blast machine at all times that the High Speed Continuous Sand Mixer hopper, the Knockout Station and the Wheelabrator shot blast machine are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.4.7 Visible Emissions Notations

(a) Visible emission notations of the Floor pouring and cooling operations and each of the stack exhausts for the baghouses controlling the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.4.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine, at least once per shift when the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.9 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.4.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.11 Record Keeping Requirements

(a) To document compliance with Condition D.4.1(d), the Permittee shall maintain records of the sand throughput to the High Speed Continuous Sand Mixer for each month.

(b) To document compliance with Conditions D.4.1(e) and D.4.3(a), the Permittee shall maintain records of the resin usage for the High Speed Continuous Sand Mixer for each month.

(c) To document compliance with Condition D.4.1(f) and D.4.3(b), the Permittee shall maintain records of the VOC content of the binders used for the High Speed Continuous Sand Mixer each month.

(d) To document compliance with Condition D.4.1(b), the Permittee shall maintain records of the metal throughput to the Wheelabrator shot blast machine for each month.

(e) To document compliance with Condition D.4.7, the Permittee shall maintain records of visible emission notations of the Floor pouring and cooling operations and each of the stack exhausts for the baghouses controlling the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine once per shift.

(f) To document compliance with Condition D.4.8, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(g) To document compliance with Condition D.4.9, the Permittee shall maintain records of the results of the inspections required under Condition D.4.9 and the dates the vents are redirected.

(h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.4.1(b), D.4.1(d), D.4.1(e), and D.4.3(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.5 FACILITY CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(j) one (1) Chill Iron shot blast machine (ID No. Chill Iron Shot Blast), installed in 1972, with a maximum throughput of 120 pounds of castings per hour, controlled by one (1) baghouse (ID No. 8-DC-2), exhausting inside the building;

(k) one (1) paint spray booth (ID No. Spray Painting), installed in 1982, using a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards and a maximum of 10 gallons per year of paint thinner, with dry filters for particulate matter overspray control, exhausting through one (1) stack (ID No. 5-E-1);

(l) one (1) assembled boiler rating and certification operation, with a maximum boiler heat input rating of 7.216 million British thermal units (MMBtu) per hour, combusting natural gas, No. 2 distillate fuel oil, or propane;

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.5.1 Particulate [326 IAC 6-3-2][40 CFR 52 Subpart P]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Chill Iron shot blast machine shall not exceed 0.62 pound per hour when operating at a process weight rate of 120 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 40 CFR 52 Subpart P, the PM from the one (1) paint spray booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.5.2 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (c)), particulate emissions from each of the boilers tested in the boiler rating and certification operation shall not exceed 0.6 pounds per MMBtu.

D.5.3 Sulfur Dioxide (SO_2) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the boiler rating and certification operation shall not exceed five tenths (0.5) pounds per MMBtu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.5.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.5.5 Particulate Matter (PM)

(a) In order to comply with condition D.5.1(a), the baghouse for PM control shall be in operation and control emissions from the Chill Iron shot blast machine at all times that the Chill Iron shot blast machine is in operation.

(b) In order to comply with condition D.5.1(b), the dry filters for PM control shall be in place and control emissions from the paint spray booth at all times when the paint spray booth is in operation.

D.5.6 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

(a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:

(1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification, or;

(2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.

(A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and

(B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler rating and certification operation, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.5.7 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the baghouse controlling the Chill Iron shot blast machine shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C -

Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.5.8 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters in the paint spray booth. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack (5-E-1) while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Chill Iron shot blast machine, at least once per shift when the Chill Iron shot blast machine is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.10 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the Chill Iron shot blast machine when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.5.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C

- Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.5.12 Record Keeping Requirements

(a) To document compliance with Condition D.5.7, the Permittee shall maintain records of visible emission notations of the stack exhaust for the baghouse controlling the Chill Iron shot blast machine once per shift.

(b) To document compliance with Condition D.5.8, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) To document compliance with Condition D.5.9, the Permittee shall maintain the following:

(1) Records of the inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.5.10, the Permittee shall maintain records of the results of the inspections required under Condition D.5.10 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(m) One (1) indoor scrap handling operation consisting of the following:
- (1) one (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5);
- (2) one (1) rotary reclaimer, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5);
- (3) one (1) sand and metal conveyor, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5); and
- (4) one (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5).

(n) one (1) pneumatically conveyed raw sand storage silo for the High Speed Continuous Sand Mixer, with a maximum sand storage capacity of 75 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse (ID No. 39-DC-5) for control of particulate matter emissions, exhausting through one (1) stack (ID No. 39-DC-5);

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.6.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The total PM and PM10 emissions from the indoor scrap handling operation and the raw sand storage silo that are controlled by the baghouse that exhausts through stack No. 39-DC-5 shall not exceed 0.10 and 0.06 pound per ton of metal and sand throughput, respectively.

(b) The throughput of sand from the raw sand storage silo shall not exceed 42,574 tons of sand per twelve (12) consecutive month period, with compliance determined at the end of each month.

The above PM and PM10 emission limitations and the sand throughput limitation will limit total PM and PM10 emissions from the indoor scrap handling operation, the raw sand storage silo, and the High Speed Continuous Sand Mixer (listed in section D.4) to less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.6.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
Crusher	15.00	25.16
Rotary Reclaimer	25.00	35.43
Spent Sand Storage Silo	10.00	19.18
Sand and Metal Conveyor	25.00	35.43
Raw Sand Storage Silo	10.00	19.18

(b) For purposes of demonstrating compliance with the particulate emission limits for the indoor scrap handling operation and the raw sand storage silo, all of which are controlled by the baghouse that exhausts through stack No. 39-DC-5, the allowable particulate emission rate from stack No. 39-DC-5 shall be limited to 134.38 pounds per hour.

D.6.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

Compliance Determination Requirements

D.6.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period within 60 days after achieving maximum capacity, but no later than 180 days after startup, in order to demonstrate compliance with Conditions D.6.1 and D.6.2, the Permittee shall perform PM and PM-10 testing on the baghouse that exhausts through stack No. 39-DC-5 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C-Performance Testing.

D.6.5 Particulate Matter (PM)

In order to comply with Conditions D.6.1 and D.6.2, the baghouses for PM and PM10 control shall be in operation and control emissions from the indoor scrap handling operation and the raw sand storage silo for the High Speed Continuous Sand Mixer at all times that the indoor scrap handling operation and the raw sand storage silo for the High Speed Continuous Sand Mixer are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.6.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the baghouse controlling the indoor scrap handling operation and the raw sand storage silo shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.6.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse controlling the indoor scrap handling system and the raw sand storage silo at least once per shift when the indoor scrap handling system and the raw sand storage silo are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.6.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the indoor scrap handling system and the raw sand storage silo when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.6.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.6.10 Record Keeping Requirement

(a) To document compliance with Condition D.6.1(b), the Permittee shall maintain records of the sand throughput to the raw sand storage silo for each month.

(b) To document compliance with Condition D.6.6, the Permittee shall maintain records of visible emission notations of the stack exhaust for the baghouse controlling the indoor scrap handling operation and the raw sand storage silo once per shift.

(c) To document compliance with Condition D.6.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.6.8, the Permittee shall maintain records of the results of the inspections required under Condition D.6.8 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.6.1(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(o) two (2) 200 ton capacity core and mold sand silos (ID Nos. Silo #1 and Silo #2), both installed in 1950, each with a maximum sand throughput of 16.8 tons per hour, both controlled by one (1) baghouse (ID 37-1-DC-3), exhausting through one (1) stack (ID No. 37-1-DC-3);

(p) one Isocure core making operation consisting of the following:

(1) one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(2) one (1) Isocure core machine, installed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by one (1) natural gas fired afterburner (ID No. Afterburner J), rated at 1.4 MMBtu per hour, exhausting through one (1) stack (ID No. 37-1-E-2); and

(3) one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(q) one (1) Pepset core making operation consisting of the following:

(1) one (1) enclosed Pepset sand mixer, installed in 1979, consisting of the Pepset Large Core Mixer and the Pepset Small Core Mixer, with a maximum sand throughput of 6.0 tons per hour;

(2) one (1) Pepset core machine, installed in 1979, with a maximum throughput of 6.0 tons per hour of sand, exhausting inside the building; and

(3) one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(r) one (1) Warm Box core making operation consisting of the following:

(1) two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(2) three (3) Warm Box core machines (ID Warm Box Core Machines #1, #2, and #3), installed in 1971, 1976, and 1981, respectively, each with a maximum throughput of 1.73 tons per hour of sand, all exhausting inside the building; and

(3) one (1) 10 ton capacity Warm Box line sand hopper, installed in 1971, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1) baghouse (ID 36-1-DC-7), which exhausts through one (1) stack (ID No. 36-1-DC-7);

(s) one (1) enclosed 10 ton capacity core and mold sand hopper, elevator, and conveyor, installed in 1975, with a maximum sand throughput of 16.8 tons per hour; and

(t) one (1) dip tank (ID No. Dip Tank Painting), installed in 1970, using a maximum of 5.8 pounds of coating per hour to coat metal parts, exhausting through one (1) stack (ID No. 3-E-1).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.7.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The sand throughput to each of the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper, all installed in 1979, shall not exceed 16,500 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) Total PM and PM10 emissions from the Pepset line sand hopper installed in 1979, shall not exceed 5.7 and 3.4 pounds per hour, respectively. The baghouse (36-1-DC-7) shall be in operation at all times that the Pepset line sand hopper is in operation and shall maintain a minimum overall control efficiency of 74.3% in order to comply with this limit.

(c) The resin usage for the Pepset core machine shall not exceed 829,838 pounds of resin per 12 consecutive month period, with compliance determined at the end of each month. Catalyst usage for the Pepset core machine shall not exceed 35,268 pounds of VOC catalyst per 12 consecutive month period, with compliance determined at the end of each month.

(d) The VOC emissions from resin usage in the Pepset core machine shall not exceed 0.05 pound per pound of resin.

(e) The VOC emissions from catalyst usage in the Pepset core machine shall not exceed 1.53 pounds per ton of cores.

This sand throughput limit for the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper, the PM and PM10 emission limits, the resin and catalyst usage limits and the VOC emission limits for the Pepset core machine will limit total VOC, PM, and PM10 emissions from all emission units installed in 1979 to less than 40, 25, and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.7.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
Isocure Line Mixer and Sand Handling	5.80	13.31
Pepset Line Sand Handling	6.00	13.62
Warm Box Line Sand Handling	5.00	12.05

(b) For purposes of demonstrating compliance with the particulate emission limits pursuant to 326 IAC 6-3-2 for the Isocure Sand Mixer and sand handling, the Pepset line sand handling, the Warm Box line sand handling, and the B-Line Shakeout and the B-Line Muller & Sand Handling (including the B-Line Holding Silo) listed in section D.3, all of which are controlled by the baghouse identified as 36-1-DC-7, the allowable particulate emission rate from the baghouse identified as 36-1-DC-7 shall be limited to 142.77 pounds per hour.

D.7.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.7.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) During the period within 60 days after the baghouse is installed and operational or within 180 days after Part 70 permit issuance, whichever is later, in order to demonstrate compliance with Conditions D.7.1 and D.7.2, the Permittee shall perform PM and PM-10 testing on the baghouse identified as 36-1-DC-7, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) During the period within 180 days after issuance of this permit, in order to demonstrate the overall control efficiency, the Permittee shall perform VOC testing on Afterburner J for the Isocure core machine utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.7.5 Particulate Matter (PM)

In order to comply with Conditions D.7.1 and D.7.2, the baghouse for PM and PM10 control shall be in operation and control emissions from the Isocure Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box line sand hopper, and the Warm Box Sand Mixers, at all times that the Isocure Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box line sand hopper, and the Warm Box Sand Mixers are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.7.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, and the core and mold sand hopper, identified as 36-1-DC-7, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.7.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, and the core and mold sand hopper at least once per shift when the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, and the core and mold sand hopper are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.7.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, and the core and mold sand hopper when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.7.9 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.7.10 Record Keeping Requirement

(a) To document compliance with Condition D.7.1(a), the Permittee shall maintain records of the sand throughput to the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper for each month.

(b) To document compliance with Condition D.7.1(c), the Permittee shall maintain records of the resin and catalyst usage for the Pepset core machine for each month.

(c) To document compliance with Condition D.7.6, the Permittee shall maintain records of visible emission notations of the stack exhaust for the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, and the core and mold sand hopper once per shift.

(d) To document compliance with Condition D.7.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(e) To document compliance with Condition D.7.8, the Permittee shall maintain records of the results of the inspections required under Condition D.7.8 and the dates the vents are redirected.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.7.1(a) and D.7.1(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- C The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- C The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: four (4) electric induction furnaces, the electric holding furnace, and the charge handling system
Parameter: PM and PM10 emissions
Limit: The throughput of metal to each of the following facilities shall not exceed 71,200 tons per twelve (12) consecutive month period: (1) all four (4) electric induction furnaces; (2) the electric holding furnace; and (3) the charge handling system

YEAR: _____

Month	Metal Throughput This Month (tons)			Metal Throughput Previous 11 Months (tons)			12 Month Total Metal Throughput (tons)		
	Electric Induction Furnaces	Electric Holding Furnace	Charge Handling	Electric Induction Furnaces	Electric Holding Furnace	Charge Handling	Electric Induction Furnaces	Electric Holding Furnace	Charge Handling

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: A-Line Muller
Parameter: PM and PM10 emissions
Limit: The throughput of sand to the A-Line Muller and A-Line Holding Silo shall not exceed 464,200 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations
Parameter: PM and PM10 emissions
Limit: The throughput of metal to each of the B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations shall not exceed 31,500 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Metal Throughput This Month (tons)			Metal Throughput Previous 11 Months (tons)			12 Month Total Metal Throughput (tons)		
	B-Line Pouring	B-Line Cooling	B-Line Shakeout	B-Line Pouring	B-Line Cooling	B-Line Shakeout	B-Line Pouring	B-Line Cooling	B-Line Shakeout

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: B-Line Muller
Parameter: PM and PM10 emissions
Limit: The throughput of sand to the B-Line Muller and B-Line Holding Silo shall not exceed 130,000 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: High Speed Continuous Sand Mixer and Hopper
Parameter: PM, PM10, and VOC emissions
Limit: The throughput of sand to the High Speed Continuous Sand Mixer (ID Mixer) shall be limited to a maximum of 42,574 tons of sand per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: High Speed Continuous Sand Mixer
Parameter: VOC emissions
Limit: The resin usage for the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 996,000 pounds of resin per 12 consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Resin Usage This Month (pounds)	Resin Usage Previous 11 Months (pounds)	12 Month Total Resin Usage (pounds)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: Wheelabrator shot blast machine
Parameter: VOC emissions
Limit: The throughput of metal to the Wheelabrator shot blast machine shall not exceed 71,200 tons per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Metal Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: raw sand storage silo for the High Speed Continuous Sand Mixer
Parameter: PM and PM10 emissions
Limit: The throughput of sand from the raw sand storage silo shall not exceed 42,574 tons of sand per twelve (12) consecutive month period.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Sand Throughput This Month (tons)	Sand Throughput Previous 11 Months (tons)	12 Month Total Sand Throughput (tons)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper
Parameter: VOC emissions
Limit: The sand throughput to each of the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper shall not exceed 16,500 tons per twelve (12) consecutive month period.

YEAR: _____

	Sand Throughput This Month (tons)			Sand Throughput Previous 11 Months (tons)			12 Month Total Sand Throughput (tons)		
Month	Pepset Sand Mixer	Pepset core machine	Pepset Sand Hopper	Pepset Sand Mixer	Pepset core machine	Pepset Sand Hoper	Pepset Sand Mixer	Pepset core machine	Pepset Sand Hopper

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020
Facility: Pepset core machine
Parameter: VOC emissions
Limit: The resin usage for the Pepset core machine shall not exceed 829,838 pounds of resin per 12 consecutive month period. Catalyst usage for the Pepset core machine shall not exceed 35,268 pounds of VOC catalyst per 12 consecutive month period.

YEAR: _____

Month	Column 1		Column 2		Column 1 + Column 2	
	Resin Usage This Month (pounds)	Catalyst Usage This Month (pounds)	Resin Usage Previous 11 Months (pounds)	Catalyst Usage Previous 11 Months (pounds)	12 Month Total Resin Usage (pounds)	12 Month Total Catalyst Usage (pounds)

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Weil-McLain
Source Address: 500 Blaine Street, Michigan City, Indiana 46360
Mailing Address: 500 Blaine Street, Michigan City, Indiana 46360-2388
Part 70 Permit No.: T091-6295-00020

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Part 70 Operating Permit

Source Name: Weil-McLain
Source Location: 500 Blaine Street, Michigan City, Indiana 46360-2388
County: LaPorte
SIC Code: 3321
Operation Permit No.: T091-6295-00020
Permit Reviewer: Trish Earls/EVP

On December 30, 2001, the Office of Air Quality (OAQ) had a notice published in the News Dispatch, Michigan City, Indiana, stating that Weil-McLain had applied for a Part 70 Operating Permit to operate a gray iron foundry producing gray iron boilers. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On February 4, 2002, Kathryn Basham of August Mack Environmental, Inc. submitted comments on behalf of Weil-McLain on the proposed permit. A summary of the comments and responses is as follows:

Comment #1

Please revised section A.2(d) as follows:

> one (1) electric holding furnace, installed in 1971, with a maximum molten metal storage capacity of 20 tons; transfer from carrier ladle to holding furnace exhausts through one (1) stack (ID No. 36-E-24);

Response #1

The equipment description for the electric holding furnace under section A.2(d) is revised as follows:

(d) one (1) electric holding furnace, installed in 1971, with a maximum molten metal storage capacity of 20 tons~~,~~**; the transfer of metal from the carrier ladle to the holding furnace** exhaust~~ing~~**s** through one (1) stack (ID No. 36-E-24);

Comment #2

Please revise Section A.2(e)(1) and Section D.2 facility description as follows:

> one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 1984, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No.36-1-DC-8);

In an additional comment received from the source at a later date, they requested that the above facility description be further revised to include one (1) 50 ton capacity bond silo, which was installed in 1984, and

is controlled by one (1) bin vent. The material from the bond silo is pneumatically conveyed to the A-Line Muller.

Response #2

See response #13 below for changes in the applicability of the PSD rules to the A-Line Holding Silo as a result of the change in installation date. Also, the 50 ton capacity bond silo has been added to the description. There are no additional emissions from sand handling added because of the bond silo since the maximum throughput of sand remains unchanged. The equipment descriptions for the A-Line Holding Silo under section A.2(e)(1) and section D.2 are revised to read as follows:

(e) one (1) mold making operation (ID No. A-Line Molding) consisting of the following:
(1) one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 19~~50~~**84**, controlled by one (1) baghouse (ID No. 36-1-DC-~~5~~**8**), exhausting through one (1) stack (ID No. 36-1-DC-~~5~~**8**)**, and one (1) 50 ton capacity bond silo, installed in 1984, controlled by one (1) bin vent**;

Comment #3

Please revise Section A.2(e)(2) and Section D.2 facility description as follows:

one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);

Response #3

The equipment descriptions for the A-Line Muller under section A.2(e)(2) and section D.2 are revised to read as follows:

(2) one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-~~5~~**8**), exhausting through one (1) stack (ID No. 36-1-DC-~~5~~**8**);

Comment #4

Please revise Section A.2(e)(5) and Section D.2 facility description as follows:

one (1) mold & casting shakeout operation (ID No. A-Line Shakeout), installed in 1964, with a maximum metal casting throughput of 24 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);

Response #4

The equipment descriptions for the A-Line Shakeout under section A.2(e)(5) and section D.2 are revised to read as follows:

(5) one (1) mold and casting shakeout operation (ID No. A-Line Shakeout), installed in 1964, with a maximum metal casting throughput of 24 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-~~6~~**8**), exhausting through one (1) stack (ID No. 36-1-DC-~~6~~**8**);

See response #15 below for additional changes to the equipment description for the A-Line Shakeout.

Since the A-Line Holding Silo, the A-Line Muller, and the A-Line Shakeout are all controlled by one (1) baghouse (ID No. 36-1-DC-8), the following conditions in the Title V permit have been revised as shown on the following page. Although the A-Line Holding Silo was always considered part of sand handling, this is clarified in condition D.2.2 below. As discussed in response #15 below, the process weight rates for the A-Line Cooling and Shakeout operations have been revised to include metal, mold sand, and core sand throughputs.

Also, Weil-McLain has requested that the pressure drop range for the baghouse (ID No. 36-1-DC-8) be changed from between 2.0 and 6.0 inches of water to between 2.0 and 8.0 inches of water. This change has also been made.

The emission limit for baghouse 36-1-DC-8 of 118.74 pounds per hour represents the sum of the emission limits for the A-Line Shakeout of 60.23 pounds per hour and the A-Line Muller and Sand Handling (including the A-Line Holding Silo) of 58.51 pounds per hour.

D.2.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)
A-Line Pouring	234.00*	60.23
A-Line Cooling	~~24.00~~ **234.00***	~~34.48~~ **60.23**
A-Line Shakeout	~~24.00~~ **234.00***	~~34.48~~ **60.23**

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)
A-Line Muller & Sand Handling **(including A-Line Holding Silo)**	200.00	58.51

* Includes metal, sand, and core throughput.

(b) For purposes of determining compliance with the particulate emission limits pursuant to 326 IAC 6-3-2 for the A-Line Shakeout and the A-Line Muller & Sand Handling (including the A-Line Holding Silo), all exhausting through baghouse 36-1-DC-8, the allowable particulate emission rate from baghouse 36-1-DC-8 shall be limited to 118.74 pounds per hour.

D.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform PM testing on the A-Line Pouring operation, and **PM and PM-10 testing** on the baghouse controlling the A-Line Shakeout operation, ~~identified as 36-1-DC-6, and PM and PM-10 testing on the baghouse controlling~~ the A-Line Holding Silo**,** and **the A-Line** Muller, identified as 36-1-DC-~~5~~**8**, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.5 Particulate Matter (PM)

In order to comply with Conditions D.2.1 and D.2.2, the baghouse~~s~~ **(ID 36-1-DC-8)** for PM and PM10 control shall be in operation and control emissions from the A-Line Shakeout operation and the A-Line Holding Silo and Muller at all times that the A-Line Shakeout operation and the A-Line Holding Silo and Muller are in operation.

D.2.6 Visible Emissions Notations

(a) Visible emission notations of the A-Line pouring and cooling operations and ~~each of~~ the stack exhaust~~s~~ for the baghouse~~s~~ **(ID 36-1-DC-8)** controlling the A-Line Holding Silo and Muller, and the A-Line Shakeout operation shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

D.2.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across ~~each of~~ the baghouse~~s~~ used in conjunction with the A-Line Shakeout operation and the A-Line Holding Silo and Muller, at least once per shift when the A-Line Shakeout operation and the A-Line Holding Silo and Muller are in operation when venting to the atmosphere. When for any one reading, the pressure drop across ~~either of~~ the baghouse~~s~~ is outside the normal range of 2.0 and ~~6.0~~ **8.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - ~~Failure to Take Response Steps~~

Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Comment #5

Please revise Section A.2(f)(1) and Section D.3 facility description as follows:

one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 1987, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No.36-1-DC-7);

In an additional comment received from the source at a later date, they requested that the above facility description be further revised to include one (1) 50 ton capacity bond silo, which was installed in 1987, and is controlled by one (1) bin vent. The material from the bond silo is pneumatically conveyed to the B-Line Muller.

Response #5

See response #13 below for changes in the applicability of the PSD rules to the B-Line Holding Silo as a result of the change in installation date. Also, the 50 ton capacity bond silo has been added to the description. There are no additional emissions from sand handling added because of the bond silo since the maximum throughput of sand remains unchanged. The equipment descriptions for the B-Line Holding Silo under sections A.2(f)(1) and section D.3 are revised to read as follows:

(f) one (1) mold making operation (ID No. B-Line Molding) consisting of the following:
(1) one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 19~~50~~**87**, controlled by one (1) baghouse (ID No. 36-1-DC-~~3~~**7**), exhausting through one (1) stack (ID No. 36-1-DC-~~3~~**7**)**, and one (1) 50 ton capacity bond silo, installed in 1987, controlled by one (1) bin vent**;

Comment #6

Please revise Section A.2(f)(2) and Section D.3 facility description as follows:

one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

Response #6

The equipment descriptions for the B-Line Muller under section A.2(f)(2) and section D.3 are revised to read as follows:

(2) one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-~~3~~**7**), exhausting through one (1) stack (ID No. 36-1-DC-~~3~~**7**);

Comment #7

Please revise Section A.2(f)(5) and Section D.3 facility description as follows:

> one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

Response #7

The equipment descriptions for the B-Line Shakeout under section A.2(f)(5) and section D.3 are revised to read as follows:

(5) one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-~~3~~**7**), exhausting through one (1) stack (ID No. 36-1-DC-~~3~~**7**);

See response #15 below for additional changes to the equipment description for the B-Line Shakeout.

As noted in Response #8 below, particulate matter emissions from the Isocure sand mixer, the Isocure sand hopper and elevator, the Pepset sand hopper, the Warm Box mixers, and the Warm Box sand hopper are now also controlled by the baghouse identified as 36-1-DC-7. Therefore, the overall PM emission limit for the baghouse which controls the above listed units and the B-Line Holding Silo, the B-Line Muller, and the B-Line Shakeout, listed in condition D.3.2(b) has been revised as shown below. Also, although the B-Line Holding Silo was always considered part of sand handling, this is clarified in condition D.3.2 below.

The emission limit for baghouse 36-1-DC-7 of 142.77 pounds per hour represents the sum of the emission limits for the B-Line Shakeout of 52.51 pounds per hour, the B-Line Muller and Sand Handling (including the B-Line Holding Silo) of 51.28 pounds per hour, the Isocure Line Mixer and Sand Handling of 13.31 pounds per hour, the Pepset Line Sand Handling of 13.62 pounds per hour, and the Warm Box Line Sand Handling of 12.05 pounds per hour.

D.3.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and

P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
B-Line Pouring	113.00*	52.51
B-Line Cooling	113.00*	52.51
B-Line Shakeout	113.00*	52.51
B-Line Muller & Sand Handling **(including B-Line Holding Silo)**	100.00	51.28

* Includes metal, sand, and core throughput.

(b) For purposes of demonstrating compliance with the ~~PM~~ **particulate** emission limits **pursuant to 326 IAC 6-3-2** for the B-Line Shakeout and the B-Line Muller & Sand Handling **(including the B-Line Holding Silo)**, ~~both~~ **and the Isocure sand mixer, the Isocure sand hopper and elevator, the Pepset sand hopper, the Warm Box mixers, and the Warm Box sand hopper listed in section D.7, all** of which are controlled by the baghouse identified as 36-1-DC-~~3~~**7**, the allowable ~~PM~~ **particulate** emission rate from the baghouse, identified as 36-1-DC-~~3~~**7**, shall be limited to ~~69.15~~ **142.77** pounds per hour.

Comment #8

Please revise Section A.2(o) and Section D.7 facility description as follows:

two (2) 200 ton capacity core and mold sand silos (ID Nos. Silo #1 and Silo #2), both installed in 1950, each with a maximum sand throughput of 16.8 tons per hour, both controlled by one (1) baghouse (ID Core Sand Baghouse A), exhausting through one (1) stack;

Response #8

Since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has installed a new baghouse to control emissions from the core and mold sand silos. The baghouse is identified as 37-1-DC-3. Therefore, the equipment descriptions for the two (2) sand silos in sections A.2(o) and D.7 have been revised as follows:

(o) two (2) 200 ton capacity core and mold sand silos (ID Nos. Silo #1 and Silo #2), both installed in 1950, each with a maximum sand throughput of 16.8 tons per hour, both controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **37-1-DC-3**), exhausting through one (1) stack **(ID No. 37-1-DC-3)**;

Weil-McLain has also requested that the pressure drop range for the baghouse (ID No. 37-1-DC-7) be changed from between 2.0 and 6.0 inches of water to between 2.0 and 8.0 inches of water. Conditions D.7.6, D.7.7, D.7.8, and D.7.10 have been revised as follows:

D.7.6 Visible Emissions Notations

(a) Visible emission notations of the stack exhaust for the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos~~, and the core and mold sand hopper, identified as ~~Core Sand Baghouse~~ **36-1-DC-7**, shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.7.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos,~~ and the core and mold sand hopper at least once per shift when the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos,~~ and the core and mold sand hopper are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and ~~6.0~~ **8.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.7.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos,~~ and the core and mold sand hopper when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.7.10 Record Keeping Requirement

(a) To document compliance with Condition D.7.1(a), the Permittee shall maintain records of the sand throughput to the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper for each month.

(b) To document compliance with Condition D.7.6, the Permittee shall maintain records of visible emission notations of the stack exhaust for the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos,~~ and the core and mold sand hopper once per shift.

(c) To document compliance with Condition D.7.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.7.8, the Permittee shall maintain records of the results of the inspections required under Condition D.7.8 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment #9

Please revise Section A.2(p)(1) and Section D.7 facility description as follows:

one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID Core Sand Baghouse A), exhausting through one (1) stack; and

Response #9

As noted in Response #14, since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has elected to use one (1) baghouse to control the core sand handling operations. The baghouse controlling the B-Line holding silo, the B-Line muller, and the B-Line shakeout, identified as 36-1-DC-7, now also controls the Isocure sand mixer, therefore, the equipment descriptions for the Isocure sand mixer in sections A.2(p)(1) and D.7 are revised as follows:

(1) one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), exhausting through one (1) stack **(ID No. 36-1-DC-7)**;

Comment #10

Please revise Section A.2(p)(3) and Section D.7 facility description as follows:

one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID Core Sand Baghouse A), which exhausts through one (1) stack;

Response #10

As noted in Response #14, since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has elected to use one (1) baghouse to control the core sand handling operations. The baghouse controlling the B-Line holding silo, the B-Line muller, and the B-Line shakeout, identified as 36-1-DC-7, now also controls the Isocure sand hopper and elevator, therefore, the equipment descriptions for the Isocure sand hopper and elevator in sections A.2(p)(3) and D.7 are revised as follows:

(3) one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

Comment #11

Please revise Section A.2(q)(3) and Section D.7 facility description as follows:

one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID Core Sand Baghouse B), which exhausts through one (1) stack;

Response #11

As noted in Response #14, since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has elected to install one (1) baghouse to control the core sand handling operations. The baghouse controlling the B-Line holding silo, the B-Line muller, and the B-Line shakeout, identified as 36-1-DC-7, now also controls the Pepset line sand hopper, therefore, the equipment descriptions for the Pepset line sand hopper in sections A.2(q)(3) and D.7 are revised as follows:

(3) one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

Comment #12

Please revise Section A.2(r)(1) and Section D.7 facility description as follows:

two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID Core Sand Baghouse B), which exhausts through one (1) stack;

Response #12

As noted in Response #14, since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has elected to install one (1) baghouse to control the core sand handling operations. The baghouse controlling the B-Line holding silo, the B-Line muller, and the B-Line shakeout, identified as 36-1-DC-7, now also controls the Warm Box mixers, therefore, the equipment descriptions for the Warm

Box mixers in sections A.2(r)(1) and D.7 are revised as follows:

(1) two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

Comment #13

Please revise Section A.2(r)(3) and Section D.7 facility description as follows:

one (1) 10 ton capacity Warm Box line sand hopper, installed in 1971, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1) baghouse (ID Core Sand Baghouse B), which exhausts through one (1) stack;

Response #13

As noted in Response #14, since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has elected to install one (1) baghouse to control the core sand handling operations. The baghouse controlling the B-Line holding silo, the B-Line muller, and the B-Line shakeout, identified as 36-1-DC-7, now also controls the Warm Box line sand hopper, therefore, the equipment descriptions for the Warm Box line sand hopper in sections A.2(r)(3) and D.7 are revised as follows:

(3) one (1) 10 ton capacity Warm Box line sand hopper, installed in 197~~9~~**1**, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

Also, due to the change in the installation dates for the A-Line Holding Silo, the B-Line Holding Silo and the Warm Box line sand hopper, the limits to render the requirements of 326 IAC 2-2 (PSD) have been revised to include or not include the above units as necessary.

Changes to the methodology used to calculate VOC emissions from core making have also resulted in changes to the VOC limits in condition D.7.1 for the Pepset core machine to render the requirements of 326 IAC 2-2 (PSD) not applicable. See item 12 under the changes made by the OAQ for further details and all revised VOC limits resulting from this change.

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Paragraphs (a) through (f) of the rule applicability discussion for 326 IAC 2-2 (PSD) is revised as follows:

326 IAC 2-2 (Prevention of Significant Deterioration)

This existing secondary metal production source, which is one of the 28 listed source categories, is a major PSD source. However, the source did not go through PSD review based on the following information:

(a) The electric holding furnace, ~~the A-Line Holding Silo,~~ the A-Line Pouring operation, the A-Line Cooling operation, the A-Line Shakeout operation, ~~the B-Line Holding Silo,~~ the Floor Pouring operation, the Floor Cooling operation, the Floor Shakeout operation, the Knockout Station, the Isocure Sand Mixer, the Isocure core machine, the Isocure line sand hopper and elevator, the Warm Box Mixer 1, the Warm Box core machines #1 and #2, **the Warm Box line sand hopper,** the Chill Iron shot blast machine, and the dip tank, were each

constructed prior to the rule applicability date of August 7, 1977, therefore, they are not subject to the requirements of this rule. However, the total potential PM, PM10, and VOC emissions from these emission units are greater than 100 tons per year, therefore, the source was considered a major PSD source with respect to the subsequent modifications to the source.

(b) The sand throughput to the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper, all installed in 1979, shall not exceed 16,500 tons per twelve (12) consecutive month period. ~~Total VOC emissions from the Pepset Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput (based on a 1997 study performed by the Ohio Cast Metals Association (OCMA)). This is equivalent to a VOC emission limit of 2.2 pounds per hour. Total VOC emissions from the Pepset core machine shall not exceed 1.71 pounds per ton of sand throughput. This is equivalent to a VOC emission limit of 3.22 pounds per hour. Based on 8,760 hours of operation per 12 consecutive month period, this throughput limit will limit VOC emissions from the Pepset Sand Mixer and the Pepset core machine to 9.7 and 14.15 tons per twelve (12) consecutive month period, respectively.~~ **The resin usage for the Pepset core machine shall not exceed 829,838 pounds of resin per 12 consecutive month period. Catalyst usage for the Pepset core machine shall not exceed 35,268 pounds of VOC catalyst per 12 consecutive month period. The VOC emissions from resin usage in the Pepset core machine shall not exceed 0.05 pound per pound of resin. The VOC emissions from catalyst usage in the Pepset core machine shall not exceed 1.53 pounds per ton of cores. The resin and catalyst usage limits and the VOC emission limits will limit VOC emissions from the Pepset core machine to less than 40 tons per year.**

Total PM and PM10 emissions from the Pepset line sand hopper ~~and the Warm Box line sand hopper~~, ~~both~~ installed in 1979, shall not exceed 5.7 and 3.4 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the Pepset line sand hopper ~~and the Warm Box line sand hopper~~ to 24.9 and 14.9 tons per year, respectively.

This sand throughput limit for the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper and the PM and PM10 emission limits will limit total VOC, PM, and PM10 emissions from all emission units installed in 1979 to less than 40, 25, and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 do not apply. The baghouse controlling PM and PM10 emissions from ~~the Warm Box line sand hopper and~~ the Pepset line sand hopper shall be in operation at all times that the ~~Warm Box line and~~ Pepset line sand hopper~~s~~ ~~are~~**is** in operation in order to comply with this limit.

(c) The potential emissions of VOC from the Warm Box Core Machine 3, installed in 1981, are less than 40 tons per year, therefore, the requirements of 326 IAC 2-2 do not apply. The Warm Box Mixer 2, also installed in 1981, uses a non-VOC resin and has no VOC emissions.

(d) Potential PM, PM10, and VOC emissions from the paint spray booth, installed in 1982, are less than 25, 15, and 40 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 do not apply.

(e) The throughput of sand to the A-Line Muller **and the A-Line Holding Silo** shall not exceed 464,200 tons per twelve (12) consecutive month period. PM and PM10 emissions from the A-Line Muller **and the A-Line Holding Silo**, **both** installed in 1984, shall not exceed 5.7 and 3.4 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the A-Line Muller **and the A-Line Holding Silo** to 24.9 and 14.9 tons per year, respectively. Since PM and PM10 emissions are limited to less than 25 and 15 tons per year, respectively, the requirements of 326 IAC 2-2 do not apply. The baghouse controlling PM and PM10 emissions from the A-Line Muller **and the A-Line Holding Silo** shall be in operation at all times that the A-Line Muller **and the A-Line Holding Silo** ~~is~~**are** in operation to comply

with this limit.

(f) The throughput of metal to each of the B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations, installed in a twelve month period from 1986 to 1987, shall not exceed 31,500 tons per twelve (12) consecutive month period. The throughput of sand to the B-Line Muller **and the B-Line Holding Silo** shall not exceed 130,000 tons per twelve (12) consecutive month period. Total PM and PM10 emissions from the B-Line Shakeout operation**,** ~~and~~ the B-Line Muller**, and the B-Line Holding Silo** shall not exceed 7.0 and 2.6 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the B-Line Shakeout operation**,** ~~and~~ the B-Line Muller**, and the B-Line Holding Silo** to 30.66 and 11.4 tons per year, respectively. The B-Line Molding operation replaced an existing floor molding operation in 1986 which had a maximum metal throughput of 70 tons/day. The net emissions increase of each regulated pollutant from this replacement, including the throughput limits listed above and the PM and PM10 emission limits on the B-Line Shakeout**,** ~~and~~ B-Line Muller, **and B-Line Holding Silo,** plus potential emissions from the controlled and uncontrolled machining operations also installed in 1987, are less than the PSD significant modification thresholds, therefore, the requirements of 326 IAC 2-2 do not apply. The baghouse controlling PM and PM10 emissions from the B-Line Shakeout**,** ~~and~~ the B-Line Muller**, and the B-Line Holding Silo** shall be in operation at all times that the B-Line Shakeout**,** ~~and~~ the B-Line Muller**, and the B-Line Holding Silo** are in operation to ensure that the PSD significant modification thresholds are not exceeded.

Due to the above changes, the following Title V permit conditions have been revised accordingly.

D.2.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) Total PM and PM10 emissions from the A-Line Muller **and A-Line Holding Silo**, **both** installed in 1984, shall not exceed 0.107 and 0.064 pound per ton of sand throughput, respectively.

(b) The throughput of sand to the A-Line Muller **and A-Line Holding Silo** shall not exceed 464,200 tons per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

The emission limits and the sand throughput limit, yield PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

D.2.10 Record Keeping Requirements

(a) To document compliance with Condition D.2.1(b), the Permittee shall maintain records of the sand throughput to the A-Line Muller **and A-Line Holding Silo** for each month;

(b) To document compliance with Condition D.2.6, the Permittee shall maintain records of visible emission notations of the A-Line pouring and cooling operations and ~~each of~~ the stack exhaust~~s~~ for the baghouse~~s~~ controlling the A-Line Holding Silo and Muller, and the A-Line Shakeout operation once per shift.

(c) To document compliance with Condition D.2.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.2.8, the Permittee shall maintain records of the results of the inspections required under Condition D.2.8 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The throughput of metal to each of the B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations, installed in a twelve month period from 1986 to 1987, shall not exceed 31,500 tons per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

(b) The throughput of sand to the B-Line Muller **and the B-Line Holding Silo** shall not exceed 130,000 tons per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

(c) Total PM and PM10 emissions from the baghouse (36-1-DC-~~3~~**7**) controlling ~~both~~ the B-Line Shakeout operation**,** ~~and~~ the B-Line Muller**, and the B-Line Holding Silo** shall not exceed 0.38 and 0.14 pound per ton of combined metal and sand throughput, respectively.

The metal throughput limit, the sand throughput limit, and the PM and PM10 emission limits, when combined with the emissions reductions from the removal of an existing floor molding operation in 1986, yield PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

See also response #16 for additional changes to condition D.3.1.

D.7.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The sand throughput to each of the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper, all installed in 1979, shall not exceed 16,500 tons per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

(b) Total VOC emissions from the Pepset Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput.

(c) Total VOC emissions from the Pepset core machine shall not exceed 1.71 pounds per ton of sand throughput.

(d) Total PM and PM10 emissions from the Pepset line sand hopper ~~and the Warm Box line sand hopper~~, ~~both~~ installed in 1979, shall not exceed 5.7 and 3.4 pounds per hour, respectively. The baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**) shall be in operation at all times that the Pepset line sand hopper ~~and the Warm Box line sand hopper are~~ **is** in operation and shall maintain a minimum overall control efficiency of 84.15% in order to comply with this limit.

This sand throughput limit for the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper and the VOC, PM and PM10 emission limits will limit total VOC, PM, and PM10 emissions from all emission units installed in 1979 to less than 40, 25, and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

Condition D.7.1 is further revised under item 12 of the changes made by the OAQ so that the VOC limits reflect the most recent methodology used to calculate VOC emissions from coremaking.

Comment #14

Weil-McLain is in the process of installing dust collection for the point of virgin sand delivery at the two Warm Box mixers, Pepset mixers, Isocure mixers, and two virgin sand silos. Installation will be complete and the dust collection will be functional on or before April 1, 2002. A single or two dust collectors will be used, depending on the results of a brief evaluation (i.e., Core Sand Baghouse A and/or B). Weil-McLain is requesting that the IDEM integrate this information into the Title V permit as formal notification that Weil-McLain will be in compliance with the required dust collection by April 1, 2002. In the mean time, Weil-McLain is requesting a variance. Weil-McLain will notify the IDEM as soon as the installation is complete. At this point, Weil-McLain will also notify the IDEM as to the exact number of dust collectors installed on the core sand handling operations.

In addition, Weil-McLain is requesting 270 days to complete the required stack testing on the core sand baghouse(s). Please revise Section D.7.4(a) to allow for a 270 day period to complete the required stack testing.

Response #14

Since the comments on the draft Title V permit were received on February 4, 2002, Weil-McLain has stated that a new baghouse system was not yet installed on the above listed units by April 1, 2002. Therefore, the Isocure sand hopper and the Pepset Line sand hopper were not in compliance with the particulate emission limitations pursuant to 326 IAC 6-3-2 and the PM and PM10 emission limits for the Pepset line sand hopper to render the requirements of 326 IAC 2-2 (PSD) not applicable. On May 31, 2002, the Air Compliance Branch of the OAQ sent a letter to Weil-McLain identifying the noncompliance referenced above and notified the source that it had sixty (60) days to either install the necessary air pollution controls on the above listed units or perform stack testing on those units to demonstrate compliance. The source elected to use the baghouse identified as 36-1-DC-7, which also controls particulate emissions from the B-Line sand hopper, the B-Line muller, and the B-Line shakeout operation, to control particulate emissions from the Isocure mixer, the Isocure sand hopper and elevator, the Pepset sand hopper, the Warm Box mixers, and the Warm Box sand hopper. The source has stated that this system has been in operation as of August 10, 2002. The source is required to operate this baghouse at all times that the Isocure Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box line sand hopper, and the Warm Box Sand Mixers are in operation. A separate baghouse, identified as 37-1-DC-3, will be used to control particulate emissions from the two (2) core and mold sand silos (Silo #1 and Silo #2).

The testing schedule included in condition D.7.4, for the baghouse identified as 36-1-DC-7, has not been revised as requested to 270 days after permit issuance because the source has not provided adequate justification as to why they should be allowed additional time to perform the required testing on the unit. Instead the testing schedule has been revised to be consistent with the installation of the baghouse which is required to be in operation in condition D.7.5. The condition has also been revised to include the new baghouse identification as follows:

D.7.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) During the period within ~~180 days after issuance of this permit~~ **60 days after the baghouse is installed and operational or within 180 days after Part 70 permit issuance, whichever is later**, in order to demonstrate compliance with Conditions D.7.1 and D.7.2, the Permittee shall perform PM and PM-10 testing on the ~~Core Sand Baghouse~~ **baghouse identified as 36-1-DC-7,** utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) During the period within 180 days after issuance of this permit, in order to demonstrate the overall control efficiency, the Permittee shall perform VOC testing on Afterburner J for the Isocure core machine utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Comment #15

Please revise the process weight rates stated in the Sections D.2.2, D.3.2. and D.4.2 for the cooling and shakeout emission units to include metal, mold sand and core sand throughputs.

Response #15

Since the metal, mold sand and core sand are present during the cooling and shakeout operations, they will be included in the process weight rate as requested. The Isocure, Pepset, and Warm Box core making operations have a combined capacity of producing 17 tons of cores per hour. The maximum core throughputs to the A-Line, B-Line, and Floor Line are 10, 4, and 3 tons per hour, respectively. This information is now included in the equipment descriptions for the A-Line, B-Line, and Floor Line Pouring, Cooling, and Shakeout operations. The equipment descriptions listed in sections A.2, D.2, D.3, and D.4 under items (e), (f), and (g) are further revised to read as follows:

(e) one (1) mold making operation (ID No. A-Line Molding) consisting of the following:
  (1) one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 1984, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);
  (2) one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);
  (3) one (1) metal pouring operation (ID No. A-Line Pouring), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, **and a maximum throughput of 10 tons of core sand per hour,** exhausting through stack 36-E-12;
  (4) one (1) metal cooling operation (ID No. A-Line Cooling), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, **and a maximum throughput of 10 tons of core sand per hour,** exhausting through exhaust fans 32-E-2 and 32-E-1; and
  (5) one (1) mold and casting shakeout operation (ID No. A-Line Shakeout), installed in 1964, with a maximum metal casting throughput of 24 tons per hour, **and a maximum throughput of 10 tons of core sand per hour,** controlled by one (1) baghouse (ID No. 36-1-DC-8), exhausting through one (1) stack (ID No. 36-1-DC-8);

(f) one (1) mold making operation (ID No. B-Line Molding) consisting of the following:
  (1) one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 1987, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID

No. 36-1-DC-7);

(2) one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(3) one (1) metal pouring operation (ID No. B-Line Pouring), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, **and a maximum throughput of 4 tons of core sand per hour,** exhausting through stack 36-E-5;

(4) one (1) metal cooling operation (ID No. B-Line Cooling), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, **and a maximum throughput of 4 tons of core sand per hour,** exhausting partially through stack 36-E-6; and

(5) one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, **and a maximum throughput of 4 tons of core sand per hour,** controlled by one (1) baghouse (ID No. 36-1-DC-7), exhausting through one (1) stack (ID No. 36-1-DC-7);

(g) one (1) mold making operation (ID No. Floor Molding) consisting of the following:

(1) one (1) High Speed Continuous Sand Mixer (ID Mixer) and associated High Speed Continuous Sand Mixer hopper, each installed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by one (1) baghouse (ID 30-DC-6), exhausting through one (1) stack (ID No. 30-DC-6).

(2) one (1) metal pouring operation (ID No. Floor Pouring), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, **a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour,** exhausting inside the building;

(3) one (1) metal cooling operation (ID No. Floor Cooling), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, **a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour,** exhausting inside the building;

(4) one (1) mold shakeout operation (ID No. Floor Shakeout), installed in 1922, with a maximum metal casting throughput of 6 tons per hour**, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour**. The Floor Shakeout is uncontrolled and exhausts inside the building;

The allowable particulate emission limits pursuant to 326 IAC 6-3-2 listed in conditions D.2.2, D.3.2, and D.4.2 for the cooling and shakeout operations are revised as follows:

D.2.2 Particulate Matter (PM) [326 IAC 6-3-2]

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)
A-Line Pouring	234.00*	60.23
A-Line Cooling	~~24.00~~ **234.00***	~~34.48~~ **60.23**
A-Line Shakeout	~~24.00~~ **234.00***	~~34.48~~ **60.23**
A-Line Muller & Sand Handling **(including A-Line Holding Silo)**	200.00	58.51

* Includes **24 tons per hour** metal, **200 tons per hour mold** sand, and **10 tons per hour** core throughput.

D.3.2 Particulate Matter (PM) [326 IAC 6-3-2]

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)
B-Line Pouring	113.00*	52.51
B-Line Cooling	~~9.00~~ **113.00***	~~17.87~~ **52.51**
B-Line Shakeout	~~9.00~~ **113.00***	~~17.87~~ **52.51**
B-Line Muller & Sand Handling **(including B-Line Holding Silo)**	100.00	51.28

* Includes **9 tons per hour** metal, **100 tons per hour mold** sand, and **4 tons per hour** core throughput.

D.4.2 Particulate Matter (PM) [326 IAC 6-3-2]

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)
Floor Pouring	35.00*	41.32
Floor Cooling	~~6.00~~ **35.00***	~~13.62~~ **41.32**
Floor Shakeout	~~6.00~~ **35.00***	~~13.62~~ **41.32**
Knockout Station	15.00	25.16
High Speed Continuous Mixer & Floor Sand Handling	42.00	42.97
Wheelabrator Shot Blast	31.00	40.93

* Includes **6 tons per hour** metal, **26 tons per hour mold** sand, and **3 tons per hour** core throughput.

Comment #16

In Section D.3.1(c), please explain how the PM and PM10 emissions of 0.38 and 0.14 pound per ton of combined metal and sand throughput, respectively, were calculated for baghouse 36-1-DC-7.

Response #16

The B-Line Molding operation replaced an existing floor molding operation in a twelve month period from 1986 to 1987 which had a maximum metal throughput of 70 tons/day. The PM and PM10 emission limits in condition D.3.1(c) were calculated so that the net emissions increase of each pollutant from this replacement, including the metal throughput limits for the B-Line Pouring, Cooling, and Shakeout operations, the sand throughput limit for the B-Line Muller, and the PM and PM10 emission limits on the B-Line Shakeout and B-Line Muller, plus limited emissions from the machining operations (based on the limited metal throughput to electric induction furnaces) also installed in 1987, would be less than the PSD significant modification thresholds so that the requirements of 326 IAC 2-2 do not apply. After reviewing this calculation again, it was found that the limits did not include the emissions from the machining

operations. Therefore, these limits have been re-calculated as follows:

PM emissions reduction from removal of existing floor molding operation = 93.53 tons per year
PM10 emissions reduction from removal of existing floor molding operation = 50.06 tons per year

Limited PM emissions from B-Line Pouring and Cooling operations = 88.3 tons per year
Limited PM10 emissions from B-Line Pouring and Cooling operations = 54.5 tons per year

Limited PM emissions from uncontrolled machining operations = 0.36 tons per year
Limited PM10 emissions from uncontrolled machining operations = 0.16 tons per year

PSD significant modification threshold for PM = 25 tons per year (limit to 24.9 tons per year)
PSD significant modification threshold for PM10 = 15 tons per year (limit to 14.9 tons per year)

PM limit for B-Line Shakeout and B-Line Muller = 24.9 tons/yr + 93.53 tons/yr - 88.3 tons/yr - 0.36 tons/yr
= 29.77 tons/yr
= 59,540 lbs/yr ÷ 161,500 tons metal & sand /yr
= 0.37 lb PM per ton of metal and sand throughput

PM10 limit for B-Line Shakeout and B-Line Muller = 14.9 tons/yr + 50.06 tons/yr - 54.5 tons/yr - 0.16 tons/yr
= 10.3 tons/yr
= 20,600 lbs/yr ÷ 161,500 tons metal & sand /yr
= 0.13 lb PM10 per ton of metal and sand throughput

Therefore, condition D.3.1(c) is further revised to read as follows:

(c) Total PM and PM10 emissions from the baghouse (36-1-DC-7) controlling the B-Line Shakeout operation, the B-Line Muller, and the B-Line Holding Silo shall not exceed 0.3~~8~~**7** and 0.1~~4~~**3** pound per ton of combined metal and sand throughput, respectively.

Comment #17

The control devices currently utilized on the A and B-line molding lines are identical. In addition, both molding lines utilize the same raw materials (i.e., green molding sand, core sand and grey iron). The potential emissions will be identical. Therefore, the compliance testing performed on the A-line molding line is representative of the B-line and additional compliance stack testing is not necessary. Weil-McLain is requesting that the compliance determination requirements stated in Section D.3.5 be removed.

Response #17

The A-Line and B-Line Molding operations each have different maximum metal throughputs. The A-Line Molding operation has a maximum throughput of 24 tons per hour of molten metal and the B-Line Molding operation has a maximum throughput of 9 tons per hour of molten metal. Therefore, the potential emissions from the A-Line and B-Line Molding operations are not identical. However, since the B-Line is identical in operation to the A-Line but smaller, PM and PM10 testing will only be required on the baghouse controlling the A-Line Holding Silo, Muller, and Shakeout operations. The stack tests results can then be used to demonstrate compliance with the PM emission limits pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) listed in conditions D.2.2 and D.3.2 for each line and the PM and PM10 emission limits listed in conditions D.2.1 and D.3.1 for each line to render the requirements of 326 IAC 2-2 (PSD) not applicable. However, since the baghouse controlling the B-Line Holding Silo, Muller, and Shakeout operations also controls the Isocure mixer, the Isocure sand hopper and elevator, the Pepset

sand hopper, the Warm Box mixers, and the Warm Box sand hopper, PM testing is still required under condition D.7.4 to demonstrate compliance with the PM limits for those units. PM testing will still be required for the A-Line Pouring operation to verify the alternate PM emission factor used to calculate emissions. Condition D.3.5 of the Title V permit has been deleted and the Testing Requirements section of the TSD now reads as follows:

~~D.3.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]~~

~~During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Conditions D.3.1 and D.3.2, the Permittee shall perform PM and PM-10 testing on the baghouse controlling the B-Line Shakeout operation and the B-Line Holding Silo and Muller, identified as 36-1-DC-3, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.~~

Testing Requirements

Testing for PM and PM-10 will be required on one (1) of the four (4) identical electric induction furnaces since foundries are required to test electric induction furnaces. Also, alternate PM and PM-10 emission factors were used to calculate emissions which need to be verified.

Testing for PM will be required on the A-Line pouring operation to demonstrate compliance with the PM emission limit pursuant to 326 IAC 6-3-2 and to verify the alternate PM emission factor used to calculate emissions.

Testing for PM and PM-10 will be required on the following baghouses, unless otherwise noted, because potential emissions are greater than 40 tons per year and the baghouses are required to comply with the applicable PM and/or PM-10 limits for their associated emission units:

(1) the baghouse controlling the charge handling operation, identified as 39-DC-4 (PM emission factor must also be verified);

(b) the baghouse controlling the A-Line Shakeout operation, ~~identified as 36-1-DC-6 (PM testing only);~~

~~(c) the baghouse controlling~~ the A-Line Holding Silo and **the A-Line** Muller, identified as 36-1-DC-~~5~~**8 (Note: since the B-Line is identical in operation to the A-Line, but smaller, the test results from the test on the baghouse identified as 36-1-DC-8 shall also be used to demonstrate compliance with the PM and PM10 limits for the B-Line Shakeout operation, the B-Line Holding Silo, and the B-Line Muller, which are controlled by the baghouse identified as 36-1-DC-7.)**;

~~(d) the baghouse controlling the B-Line Shakeout operation, and the B-Line Holding Silo and Muller, identified as 36-1-DC-3;~~

~~(e)~~**(c)** the baghouse controlling the Knockout Station, identified as 8-DC-2;

~~(f)~~**(d)** the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos,~~ and the core and mold sand hopper, identified as ~~Core Sand Baghouse~~ **36-1-DC-7**; and

~~(g)~~**(e)** the ~~two (2)~~ **one (1)** baghouse~~s~~ controlling the Wheelabrator shot blast machine, identified as 36-DC-8~~ and 36-DC-8A~~.

Testing for VOC will be required on the afterburner, identified as Afterburner J, controlling VOC emissions from the Isocure core machine since the source is claiming an overall VOC control

efficiency of greater than 85%.

Testing for PM and PM-10 is required for the baghouse controlling the High Speed Continuous Sand Mixer hopper, identified as ~~Baghouse N~~ **30-DC-6, formerly referred to as Baghouse N**, to demonstrate compliance with the applicable PM and PM-10 emission limits. However, since testing on this baghouse was completed on October 24, 2001 as required in the Significant Source Modification (SSM 091-12963-00020), issued to this source on April 6, 2001, testing will not be required to be repeated for this baghouse for five years after the initial test.

Testing for PM and PM-10 is required for the baghouse controlling the indoor scrap handling operation and the raw sand storage silo for the High Speed Continuous Sand Mixer, that exhausts through stack ID No. ~~1~~ **39-DC-5** to demonstrate compliance with the applicable PM and PM-10 emission limits. A Significant Source Modification (SSM 091-14688-00020) was issued to this source on November 26, 2001, which required PM and PM-10 testing on this baghouse to be performed within 180 days after the permit was issued. Since this testing has not yet been completed due to operational problems with this unit, this Part 70 permit will require testing on this baghouse to be performed within 60 days after achieving maximum capacity, but no later than 180 days after startup.

Testing is not required on any of the other emission units at this source because they do not meet any of the criteria which would require a stack test.

The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment #18

In Section D.4.2, please revise the allowable PM emissions for the Wheelabrator Shot Blast to read as 40.24 pounds per hour.

Response #18

The allowable PM emission limit for the Wheelabrator Shot Blast machine pursuant to 326 IAC 6-3-2 has been verified to be 40.24 pounds per hour. Therefore, condition D.4.2 of the Title V permit has been corrected to read as follows:

D.4.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand

(60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Floor Pouring	35.00*	41.32
Floor Cooling	35.00*	41.32
Floor Shakeout	35.00*	41.32
Knockout Station	15.00	25.16
High Speed Continuous Mixer & Floor Sand Handling	42.00	42.97
Wheelabrator Shot Blast	31.00	40.~~93~~**24**

* Includes **6 tons per hour** metal, **26 tons per hour mold** sand, and **3 tons per hour** core throughput.

Comment #19

Please revise Section D.7.1(c) to read as follows:

Total VOC emissions from the Pepset core machine shall not exceed 1.72 pounds per ton of sand throughput.

Response #19

As noted in item 12 of the changes made by the OAQ, the emission calculations for core making have been revised so that the VOC emission limits are expressed in terms of resin and catalyst usages. See item 12 for the revised VOC limits in condition D.7.1.

Comment #20

In Section D.8, please remove all compliance monitoring and record keeping requirements associated with the insignificant activities. The activities listed in Section D.8 generate an insignificant amount of emissions and therefore would not require any monitoring.

Response #20

Compliance monitoring requirements do apply to insignificant activities that have applicable requirements, and:

- a NSPS or NESHAP applies; or
- there is a control device and the allowable emissions for the controlled pollutant exceed 10 lb/hr; or
- there is no control device and the actual emissions exceed 25 tons/year; or
- a condition limiting the PTE is the only thing keeping the unit out of an applicable requirement

(there may be very small and simple units that would not need compliance monitoring even if there is a limit on PTE);

C or cases when the compliance inspector thinks compliance monitoring is necessary.

Since the allowable PM emission rate from the machining operation pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) is greater than 10 pounds per hour and there are PM emission control devices, which include two (2) baghouses and coolant, the compliance monitoring requirements do apply. No changes have been made to the Part 70 permit as a result of this comment.

Comment #21

Please revise the facility identification on page 69 of 72 in the Part 70 Quarterly Report to read as follows:

Facility: raw sand storage silo for the High Speed Continuous Sand Mixer

Response #21

The facility identification on the Part 70 Quarterly Report form has been revised as requested to read as follows:

Facility: raw sand storage silo **for the High Speed Continuous Sand Mixer**

Comment #22

On August 24, 1978, an operating permit (ID: 46-09-82-0099) was issued by the Air Pollution Control Board (APCB) to Weil-McLain for the existing foundry operations. Various core making emission units and one dip tank painting operation not listed on this permit were present at this point in time. Both the IDEM and industry realize that the core making operations are vital to the production of castings. We can only assume that the core making operations were designated by the IDEM as not generating any criteria or HAP emissions when this operating permit was issued. This permitting error is not a unique situation for Weil-McLain. Multiple other foundries in the state of Indiana were issued all encompassing operating permits by the IDEM which did not specifically state the existence of the core making operations. In addition, numerous source inspections have been performed by the IDEM field office giving the IDEM the opportunity to correct this permitting error. However, the inspector never commented on the fact that the core machines required permitting. As a result, Weil-McLain is requesting that the following emission units be listed as permitted:

- In 1975, the isocure core making operations were installed at the source;
- In 1971, warm box mixer # 1 and core machines # 1 and #2 were installed at the source;
- In 1975, the core and mold sand hopper, elevator and conveyor were installed at the source; and,
- In 1970, one dip tank was installed at the source.

When this operating permit was renewed in 1983 (ID: 46-09-86-0167), the core making and dip painting emission units were again not listed in the renewed permit. Since it appeared that the core making operations did not require an operating permit, the pepset core making operation installed in 1979 was not included as a new emission unit in the renewed permit. In addition, the second warm box mixer and core machine #3, both installed in 1981, and one warm box sand hopper were also not included in the renewed permit. Again, Weil-McLain is requesting that these emission units be listed as permitted.

Over the past 25 years, Weil-McLain has been attempting to properly permit all required emissions. Weil-McLain is requesting that the IDEM take partial responsibility for this permitting error and dismiss any

enforcement issues related to the above-mentioned emission units.

Response #22

After a review of the files at OAQ, it was found that permit applications submitted in 1978 and 1991 by Weil-McLain did include reference to the coremaking operations. Also, inspections were conducted that specifically mention the isocure, pepset, and warm box units. Therefore, since it has been determined that the source did attempt to make the OAQ aware of these operations, although no action was taken by IDEM to include these operations in a permit, it has been determined that these units should not be considered as unpermitted emission units. Since these units were included in past permit applications, they will be listed with the permitted emission units in the TSD. The OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The equipment listed under the Unpermitted Emission Units and Pollution Control Equipment section of the TSD is now listed as items (p) through (t) of the Permitted Emission Units and Pollution Control Equipment section as follows:

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(p) one Isocure core making operation consisting of the following:
- (1) one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), exhausting through one (1) stack **(ID No. 36-1-DC-7)**;
- (2) one (1) Isocure core machine, installed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by one (1) natural gas fired afterburner (ID No. Afterburner J), rated at 1.4 MMBtu per hour, exhausting through one (1) stack (ID No. 37-1-E-2); and
- (3) one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

(q) one (1) Pepset core making operation consisting of the following:
- (1) one (1) enclosed Pepset sand mixer, installed in 1979, consisting of the Pepset Large Core Mixer and the Pepset Small Core Mixer, with a maximum sand throughput of 6.0 tons per hour;
- (2) one (1) Pepset core machine, installed in 1979, with a maximum throughput of 6.0 tons per hour of sand, exhausting inside the building; and
- (3) one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

(r) one (1) Warm Box core making operation consisting of the following:
- (1) two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;
- (2) three (3) Warm Box core machines (ID Warm Box Core Machines #1, #2, and #3), installed in 1971, 1976, and 1981, respectively, each with a maximum throughput of 1.73 tons per hour of sand, all exhausting inside the building; and
- (3) one (1) 10 ton capacity Warm Box line sand hopper, installed in 1971, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1)

baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

(s) one (1) enclosed 10 ton capacity core and mold sand hopper, elevator, and conveyor, installed in 1975, with a maximum sand throughput of 16.8 tons per hour; and

(t) one (1) dip tank (ID No. Dip Tank Painting), installed in 1970, using a maximum of 5.8 pounds of coating per hour to coat metal parts, exhausting through one (1) stack (ID No. 3-E-1).

The Enforcement Issue section of the TSD now reads as follows:

Enforcement Issue

(a) IDEM is aware that ~~equipment~~ **the Isocure, Pepset, and Warm Box core making operations, the core and mold sand hopper, elevator, and conveyor, and the dip tank** has~~ve~~ **ve** been constructed and operated prior to receipt of the proper permit. ~~The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*~~ **However, it has been determined that since these units were referenced in past permit applications, they will not be considered as unpermitted emission units. Therefore, these units are listed under the section of this TSD entitled *Permitted Emission Units and Pollution Control Equipment*.**

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Comment #23

The IDEM utilized the correct PM10 emission factor for the isocure sand mixer and sand handling operations, however, the emission factor appears as "0.5 pounds per ton sand handled". Please revise the emission factor to read as "0.54 pounds per ton sand handled".

Response #23

Page 12 of 25 of Appendix A, which contains the emission calculations for the Isocure Sand Mixer and Sand Handling, has been revised so that the PM10 emission factor is shown as 0.54 pound per ton of sand handled. This was the emission factor used, however, it was only displayed with one decimal place.

The following updates, listed as items 1 through 5 and 7 below, have been made to incorporate the Article 2 rule revisions that were adopted on October 3, 2001, and become effective on January 19th, 2002. For more information about this rulemaking, refer to the October 2001 Air Pollution Control Board Packet which can be found on the internet at http://www.state.in.us/idem/air/rules/apcb/packets/index.html. The rule revisions were published in the February 1, 2002 Indiana Register which can be found on the internet at http://www.IN.gov/legislative/register/index-25.html.

1. The following new rule cite has been added to condition B.2 Permit Term. Also, in order to avoid confusion for renewals as to what “original” date is being referred to, the following change has been made:

B.2 Permit Term [326 IAC 2-7-5(2)]**[326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date **of this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

2. Since condition B.7 (c) Duty to Supplement and Provide Information already addresses confidentiality, the last sentence of paragraph (b) was revised to remove the statement about confidential information, and paragraph (c) was updated for clarity.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit**.** ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]~~

(c) **For information furnished by the Permittee to IDEM, OAQ,** ~~T~~the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

3. Condition B.11, Preventive Maintenance Plan, has been revised because it is not necessary to state twice that the PMP does not need to be certified. Since it is more appropriate to state in (c), it has been removed from (a).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The ~~PMP and the~~ PMP extension notification do**es** not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

4. In condition B.12, Emergency Provisions, paragraphs (a), (b) and (g) have been revised to reflect rule changes to 326 IAC 2-7-16. This section of the rule is now consistent with 40 CFR 70.6(g) and provides an affirmative defense to an action brought for non-compliance with technology based emission limitations only. Also, the requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from condition B.15, Deviations from Permit Requirements and Conditions, to condition B.12. Paragraph (e) of condition B.12 has been revised to correct the rule cite as follows:

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation~~, except as provided in 326 IAC 2-7-16.~~

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a ~~health-based or~~ technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(~~10~~**9**) be revised in response to an emergency.

~~(g) Operations may continue during an emergency only if the following conditions are met:~~

~~(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.~~

~~(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:~~

~~(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and~~

~~(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.~~

~~Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.~~

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

5. Condition B.13 (g), Permit Shield, has been revised to correct the rule cite as follows:

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(~~7~~**8**)]

6. Condition B.14 Multiple Exceedances has been deleted, because 326 IAC 2-7-5(1)(E) has been repealed, because it conflicted with 40 CFR 70.6(a)(6).

~~B.14 Multiple Exceedances [326 IAC 2-7-5(1)(E)]~~

~~Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.~~

7. Condition B.14 Prior Permit Conditions Superseded was added to the permit to implement the intent of the new rule 326 IAC 2-1.1-9.5.

B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

8. Paragraph (b) has been removed from condition B.13 Permit Shield. Since condition B.14 Prior Permits Superceded has been added to the permit, it is not necessary for this statement to be in this condition.

B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

~~(b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. All previously issued operating permits are superseded by this permit.~~

9. Paragraph (c) has been removed from condition B.15, Deviations from Permit Requirements and Conditions, then revised and incorporated in condition B.12, Emergency Provisions (see item 4 above).

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

~~(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

10. In order to be consistent with language in 326 IAC 2-7-12(b)(2), the "(D)(i)" of the rule listed in paragraph (b) of condition B.19, Permit Revisions Under Economic Incentives and Other Programs, has been removed.

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]
[326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1)~~(D)(i)~~ and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

11. In order to be consistent with 326 IAC 2-7-20(a)(4), the rule cite in condition B.20(a)(5) has been revised as follows:

B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)**(1)**, (c)(1), and (e)(2).

12. Condition B.21 was revised as follows:

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by **the requirements of** 326 IAC 2 and 326 IAC 2-7-10.5.

13. 326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-7; therefore, this rule cite is being added to condition B.24. Also, the section and phone number that the Permittee can contact has been corrected in paragraph (c).

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]**[326 IAC 2-1.1-7]**

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-~~0425~~ **4230**(ask for OAQ, ~~Technical Support and Modeling Section~~ **I/M & Billing Section**), to determine the appropriate permit fee.

14. Condition C.7(d), Asbestos Abatements Projects, listed the statement about certification twice; one has been deleted, and (e) has been revised to correct the rule cite.

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015

Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34). ~~The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).~~

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~4~~**1**, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

15. The following was added to C.9 Compliance Requirements to state what OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements:

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

16. In condition C.15 Compliance Response Plan - Failure to Take Response Steps, paragraph (c)(2) "administrative amendment" has been revised to "minor permit modification," because 326 IAC 2-7-11(a)(7) has been repealed. Requests that do not involve significant changes to monitoring, reporting, or recordkeeping requirements may now be approved as minor permit modifications. Also, the name of the condition has been changed to better reflect the contents of the condition.

C.15 Compliance Response Plan - ~~Failure to Take Response Steps~~ **Preparation, Implementation, Records, and Reports** [326 IAC 2-7-5] [326 IAC 2-7-6]

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for ~~an administrative amendment~~ **a minor permit modification** to the permit, and such request has not been denied.

Additionally, all operating conditions in section D of the permit which reference this condition have been revised to reflect the new title of the condition.

17. The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are applicable to this source because the source is a major source of HAPs (i.e., the source has the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs) and the source includes one or more units that belong to one or more source categories affected by the Section 112(j) Maximum Achievable Control Technology (MACT) Hammer date of May 15, 2002. This source has units belonging to the following source categories which are source categories affected by the Section 112(j) MACT Hammer: Iron and Steel Foundries; Industrial, Commercial & Institutional Boilers; and Miscellaneous Metal Parts & Products Surface Coating. This rule requires the source to:

1. Submit a Part 1 MACT Application by May 15, 2002; and

2. Submit a Part 2 MACT Application within twenty-four (24) months after the Permittee submitted a Part 1 MACT Application.

The Permittee submitted a Part 1 MACT Application on May 14, 2002. Therefore, the Permittee is required to submit the Part 2 MACT Application on or before May 14, 2004. Note that on April 25, 2002, Earthjustice filed a lawsuit against the US EPA regarding the April 5, 2002 revisions to the rules implementing Section 112(j) of the Clean Air Act. In particular, Earthjustice is challenging the US EPA's 24-month period between the Part 1 and Part 2 MACT Application due dates. Therefore, the Part 2 MACT Application due date may be changed as a result of the suit. Based on a proposed settlement published in the August 26, 2002 Federal Register, it appears that US EPA intends to revise the rule so that the due date of the Part 2 MACT Application will be within twelve (12) months after the Permittee submitted the Part 1 MACT application. However, since the rule has not yet been revised, the application due date will remain at 24 months after submittal of the Part 1 MACT application until the rule is revised.

Pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The MACT and the General Provisions of 40 CFR 63, Subpart A will become new applicable requirements, as defined by 326 IAC 2-7-1(6), that must be incorporated into the Part 70 permit. After IDEM, OAQ receives the initial notification, any of the following will occur:

(A) If three or more years remain on the Part 70 permit term at the time the MACT is promulgated, IDEM, OAQ will notify the source that IDEM, OAQ will reopen the permit to include the MACT requirements pursuant to 326 IAC 2-7-9; or

(B) If less than three years remain on the Part 70 permit term at the time the MACT is promulgated, the Permittee must include information regarding the MACT in the renewal application, including the information required in 326 IAC 2-7-4(c); or

(C) The Permittee may submit an application for a significant permit modification under 326 IAC 2-7-12 to incorporate the MACT requirements. The application may include information regarding which portions of the MACT are applicable to the emission units at the source and which compliance options will be followed.

The following condition has been added to section C of the Part 70 permit to include the requirements of this rule as follows:

Part 2 MACT Application Submittal Requirement

C.21 Application Requirements for Section 112(j) of the Clean Air Act [40 CFR 63.52(e)] [40 CFR 63.56(a)] [40 CFR 63.9(b)] [326 IAC 2-7-12]

(a) The Permittee shall submit a Part 2 MACT Application in accordance with 40 CFR 63.52(e)(1). The Part 2 MACT Application shall meet the requirements of 40 CFR 63.53(b).

(b) Notwithstanding paragraph (a), the Permittee is not required to submit a Part 2 MACT Application if the Permittee no longer meets the applicability criteria of 40 CFR 63.50 by the application deadline in 40 CFR 63.52(e)(1). For example, the Permittee would not have to submit a Part 2 MACT Application if, by the application deadline:

(1) The source is no longer a major source of hazardous air pollutants, as defined in 40 CFR 63.2;

(2) The source no longer includes one or more units in an affected source category for which the U.S. EPA failed to promulgate an emission standard by May 15, 2002; or

(3) The MACT standard or standards for the affected source categories included at the source are promulgated.

(c) Notwithstanding paragraph (a), pursuant to 40 CFR 63.56(a), the Permittee shall comply with an applicable promulgated MACT standard in accordance with the schedule provided in the MACT standard if the MACT standard is promulgated prior to the Part 2 MACT Application deadline or prior to the issuance of permit with a case-by-case Section 112(j) MACT determination. The MACT requirements include the applicable General Provisions requirements of 40 CFR 63, Subpart A. Pursuant to 40 CFR 63.9(b), the Permittee shall submit an initial notification not later than 120 days after the effective date of the MACT, unless the MACT specifies otherwise. The initial notification shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V

Director, Air and Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

18. Conditions C.1, D.1.2, D.2.2, D.3.2, D.4.2, D.6.2, and D.7.2 have been revised to incorporate the 326 IAC 6-3 revisions that were adopted on February 6, 2002, and became effective on June 12, 2002. Previously, the terms "particulate" and "particulate matter" were both used in the 326 IAC 6-3, but now the term "particulate" is used consistently in 326 IAC 6-3. The revisions to the rule exempt manufacturing processes with potential emissions less than 0.551 pound per hour pursuant to 326 IAC 6-3-1(b)(14). Therefore, since potential particulate emissions from the machining operation (ID No. Machining) are less than 0.551 pound per hour, this operation is not subject to the particulate emission limitations pursuant to 326 IAC 6-3-2. Therefore, the requirements in section D.8 of the Part 70 permit no longer apply and section D.8 has been deleted from the permit.

C.1 Particulate ~~Matter~~ Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour **[40 CFR 52 Subpart P]**[326 IAC 6-3-2~~(c)~~]

(a) Pursuant to ~~326 IAC 6-3-2(c)~~ **40 CFR 52 Subpart P**, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. This condition is not federally enforceable.

D.1.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Electric Induction Furnace #1	5.00	12.05
Electric Induction Furnace #2	5.00	12.05
Electric Induction Furnace #3	5.00	12.05
Electric Induction Furnace #4	5.00	12.05

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Charge Handling	20.00	30.51

D.2.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
A-Line Pouring	234.00*	60.23
A-Line Cooling	234.00*	60.23
A-Line Shakeout	234.00*	60.23
A-Line Muller & Sand Handling (including A-Line Holding Silo)	200.00	58.51

* Includes **24 tons per hour** metal, **200 tons per hour mold** sand, and **10 tons per hour** core throughput.

(b) For purposes of determining compliance with the ~~PM~~ **particulate emission** limits pursuant to 326 IAC 6-3-2 for the A-Line Shakeout and the A-Line Muller & Sand Handling (including the A-Line Holding Silo), all exhausting through baghouse 36-1-DC-8, the allowable ~~PM~~ **particulate** emission rate from baghouse 36-1-DC-8 shall be limited to 118.74 pounds per hour.

D.3.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table

below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
B-Line Pouring	113.00*	52.51
B-Line Cooling	113.00*	52.51
B-Line Shakeout	113.00*	52.51
B-Line Muller & Sand Handling (including B-Line Holding Silo)	100.00	51.28

* Includes **9 tons per hour** metal, **100 tons per hour mold** sand, and **4 tons per hour** core throughput.

(b) For purposes of demonstrating compliance with the ~~PM~~ **particulate** emission limits **pursuant to 326 IAC 6-3-2** for the B-Line Shakeout and the B-Line Muller & Sand Handling **(including the B-Line Holding Silo)**, ~~both~~ **and the Isocure sand mixer, the Isocure sand hopper and elevator, the Pepset sand hopper, the Warm Box mixers, and the Warm Box sand hopper listed in section D.7, all** of which are controlled by the baghouse identified as 36-1-DC-~~3~~**7**, the allowable ~~PM~~ **particulate** emission rate from the baghouse, identified as 36-1-DC-~~3~~**7**, shall be limited to ~~69.15~~ **142.77** pounds per hour.

D.4.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formulas:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Floor Pouring	35.00*	41.32
Floor Cooling	35.00*	41.32
Floor Shakeout	35.00*	41.32
Knockout Station	15.00	25.16
High Speed Continuous Mixer & Floor Sand Handling	42.00	42.97
Wheelabrator Shot Blast	31.00	40.24

* Includes **6 tons per hour** metal, **26 tons per hour mold** sand, and **3 tons per hour** core throughput.

D.6.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Crusher	15.00	25.16
Rotary Reclaimer	25.00	35.43
Spent Sand Storage Silo	10.00	19.18

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Sand and Metal Conveyor	25.00	35.43
Raw Sand Storage Silo	10.00	19.18

(b) For purposes of demonstrating compliance with the ~~PM~~ **particulate** emission limits for the indoor scrap handling operation and the raw sand storage silo, all of which are controlled by the baghouse that exhausts through stack No. ~~1~~ **39-DC-5**, the allowable ~~PM~~ **particulate** emission rate from stack No. ~~1~~ **39-DC-5** shall be limited to 134.38 pounds per hour.

D.7.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 **(Particulate Emission Limitations for Manufacturing Processes)**, the ~~PM~~ **particulate** emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable ~~PM~~ **Particulate** Emissions (lb/hr)
Isocure Line Mixer and Sand Handling	5.80	13.31
Pepset Line Sand Handling	6.00	13.62
Warm Box Line Sand Handling	5.00	12.05

(b) For purposes of demonstrating compliance with the ~~PM~~ **particulate** emission limits **pursuant to 326 IAC 6-3-2** for the Isocure Sand Mixer and sand handling, the Pepset line sand handling, ~~and~~ the Warm Box line sand handling, **and the B-Line Shakeout and the B-Line Muller & Sand Handling (including the B-Line Holding Silo) listed in section D.3,** all of which are controlled by the baghouse identified as ~~Core Sand Baghouse~~ **36-1-DC-7**, the allowable ~~PM~~ **particulate** emission rate from the ~~Core Sand Baghouse~~ **baghouse identified as 36-1-DC-7** shall be limited to ~~38.98~~ **142.77** pounds per hour.

Condition D.5.1(a) has also been revised consistent with the other conditions listed above. The requirement in condition D.5.1(b) is from the previous version of 326 IAC 6-3 (Process Operations) that has been approved into the SIP will remain an applicable requirement until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action. Therefore, condition D.5.1(b) has been revised to clarify that the authority for this condition is from the SIP by adding the rule cite for 40 CFR 52, Subpart P.

D.5.1 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2] **[40 CFR 52 Subpart P]**

(a) Pursuant to 326 IAC 6-3-2 (~~Process Operations~~ **Particulate Emission Limitations for Manufacturing Processes**), the allowable ~~PM~~ **particulate** emission rate from the Chill Iron shot blast machine shall not exceed 0.62 pound per hour when operating at a process weight rate of 120 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

(b) Pursuant to ~~326 IAC 6-3-2~~ **40 CFR 52 Subpart P**, the PM from the one (1) paint spray booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

19. Additional information was added to conditions D.1.9(b), D.2.9(b), D.3.9(b), D.4.10(b), D.5.11(b), D.6.9(b), and D.7.9(b), Broken or Failed Bag Detection, to describe when a failed unit will be shut down.

(b) For single compartment baghouses, **if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then** failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

20. On July 8, 2002, Kathryn Basham of August Mack Environmental submitted a request on behalf of Weil-McLain to add the paint thinner usage for the paint spray booth (ID No. Spray Painting) which was not previously provided to IDEM. The maximum paint thinner usage is 10 gallons per year and the paint thinner is 100% volatile and is also a glycol ether, which is a HAP. An MSDS was also provided with this request. Potential emission calculations were added to the emission calculation spreadsheet in Appendix A. The paint thinner usage results in an additional 0.04 tons per year of VOC and 0.04 tons per year of glycol ether from the paint spray booth. There are no additional applicable requirements as a result of this change in emissions. The equipment description for the paint spray booth in sections A.2 and D.5 is revised as follows:

(k) one (1) paint spray booth (ID No. Spray Painting), installed in 1982, using a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards **and a maximum of 10 gallons per year of paint thinner**, with dry filters for particulate matter overspray control, exhausting through one (1) stack (ID No. 5-E-1);

Also, after further review of the MSDS for the black paint used in the paint spray booth and the gray paint used in the dip tank, it was determined that there are also glycol ether emissions from these coatings. The black paint yielded an additional 3.29 tons per year of glycol ether from the paint spray booth for a total of 3.33 tons per year and the gray paint yielded 1.58 tons per year of glycol ether from the dip tank. The detailed calculations can be seen in the emission calculation spreadsheet in Appendix A. There are no additional applicable requirements as a result of this change in emissions.

21. The emission calculations for metallic HAP emissions from the foundry operations have also been updated based on the data obtained from the most recent version of the database entitled SPECIATE, version 3.1. These calculations can be found on pages 19 and 20 of Appendix A.

22. The emission calculations for core making have been revised to be consistent with the most recent methodology used to calculate VOC emissions from core making operations. VOC emissions from catalyst usage are based on the assumption that all the VOC in the catalyst used is emitted as VOC. VOC emissions from resin usage in the Isocure core machine, the Pepset core machine, and the High Speed Continuous Sand Mixer are based on emission factors obtained from a 1997 study performed by the Ohio Cast Metal Association (OCMA) which has been determined to be acceptable to IDEM, OAQ. The emission factors have been scaled up to provide a conservative estimate of uncontrolled emissions so that no stack test would be necessary to verify emissions. For the Isocure and Pepset core making operations, VOC emissions are now assigned to the core machines since they are based on resin, catalyst, and sand throughputs to the core machines, but account for all VOC emissions that can be emitted at both the core machines and the sand mixers. The High Speed Continuous Sand Mixer is used in mold production and is not associated with a core machine, therefore, all VOC emissions from the resin usage in the mixer are assigned to the mixer. There are no VOC emissions from resin usage in the Warm Box core machines because the resin used reacts under acidic conditions and forms new products which are not VOCs.

Due to the change in emission calculations, the VOC limits for the High Speed Continuous Sand Mixer in conditions D.4.1 and D.4.3, the record keeping requirements in condition D.4.11 and the reporting requirements in condition D.4.12 have been revised as follows:

D.4.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) Total PM and PM10 emissions from the Wheelabrator shot blast machine, installed in 1990, shall not exceed 0.70 and 0.42 pound per ton of metal throughput, respectively.

(b) The throughput of metal to the Wheelabrator shot blast machine shall not exceed 71,200 tons per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

(c) ~~Total VOC emissions from the High Speed Continuous Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput.~~

(~~d~~) The total PM and PM10 emissions from the High Speed Continuous Sand Mixer, constructed in 2001, and its associated sand hopper, constructed in 2001, that is controlled by the baghouse identified as ~~Baghouse N~~ **30-DC-6** that exhausts ~~inside the building~~ **through stack ID No. 30-DC-6**, shall not exceed 0.01 and 0.01 pound per ton of sand throughput**, respectively**.

(~~e~~**d**) The throughput of sand to the High Speed Continuous Sand Mixer (ID Mixer), constructed in 2001, shall be limited to a maximum of 42,574 tons of sand per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

(e) The resin usage for the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 996,000 pounds of resin per 12 consecutive month period, with compliance determined at the end of each month.

(f) The VOC emissions from the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 0.05 pound per pound of resin.

For the emission unit installed in 1990, the emission limits in paragraph (a) above and the metal throughput limit in paragraph (b) yield total PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

For the High Speed Continuous Sand Mixer, its associated hopper, and the indoor scrap handling system (listed in section D.6), all installed in 2001, the **PM and PM10** emission limits **in paragraph (c) above,** ~~and~~ the sand throughput limit in paragraph~~s (c),~~ (d) **above**, and **the resin usage limit and VOC emission limit in paragraphs** (e) **and (f)** above yield PM, PM10, and VOC emissions that are less than 25, 15, and 40 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 are not applicable.

D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 (BACT) not applicable, the following conditions shall apply:

(a) ~~Total VOC emissions from the High Speed Continuous Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput.~~ **The resin usage for the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 996,000 pounds of resin per 12 consecutive month period, with compliance determined at the end of each month.**

(b) ~~The throughput of sand to the High Speed Continuous Sand Mixer (ID Mixer) shall be limited to a maximum of 42,574 tons of sand per twelve (12) consecutive month period.~~ **The VOC emissions from the High Speed Continuous Sand Mixer (ID Mixer) shall not exceed 0.05 pound per pound of resin.**

The **resin usage limit and the** VOC emission limit ~~and the sand throughput limitation~~ in paragraphs (a) and (b) above will limit VOC emissions from the High Speed Continuous Sand Mixer to less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) do not apply.

D.4.11 Record Keeping Requirements

(a) To document compliance with Condition~~s~~ D.4.1(~~e~~**d**) ~~and D.4.3(b)~~, the Permittee shall maintain records of the sand throughput to the High Speed Continuous Sand Mixer for each month.

(b) **To document compliance with Conditions D.4.1(e) and D.4.3(a), the Permittee shall maintain records of the resin usage for the High Speed Continuous Sand Mixer for each month.**

(c) To document compliance with Condition D.4.1(f) and D.4.3(b), the Permittee shall maintain records of the VOC content of the binders used for the High Speed Continuous Sand Mixer each month.

(d) To document compliance with Condition D.4.1(b), the Permittee shall maintain records of the metal throughput to the Wheelabrator shot blast machine for each month.

(~~c~~**e**) To document compliance with Condition D.4.7, the Permittee shall maintain records of visible emission notations of the Floor pouring and cooling operations and each of the

stack exhausts for the baghouses controlling the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine once per shift.

(~~d~~**f**) To document compliance with Condition D.4.8, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(~~e~~**g**) To document compliance with Condition D.4.9, the Permittee shall maintain records of the results of the inspections required under Condition D.4.9 and the dates the vents are redirected.

(~~f~~**h**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.4.1(b), **D.4.1(d),** D.4.1(e), and D.4.3(~~b~~**a**) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

A quarterly report form has been added to the Part 70 permit for the resin usage limit for the High Speed Continuous Sand Mixer.

The VOC limits in condition D.7.1 and the record keeping and reporting requirements in conditions D.7.10 and D.7.11 have also been revised as shown below. Also, the Pepset line sand hopper is now controlled by the baghouse identified as 36-1-DC-7 which has an overall control efficiency of 74.3% for the Pepset line sand hopper. Therefore, this change has also been included.

D.7.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The sand throughput to each of the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper, all installed in 1979, shall not exceed 16,500 tons per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

~~(b) Total VOC emissions from the Pepset Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput.~~

~~(c) Total VOC emissions from the Pepset core machine shall not exceed 1.72 pounds per ton of sand throughput.~~

(~~d~~**b**) Total PM and PM10 emissions from the Pepset line sand hopper installed in 1979, shall not exceed 5.7 and 3.4 pounds per hour, respectively. The baghouse (~~ID Core Sand Baghouse~~**36-1-DC-7**) shall be in operation at all times that the Pepset line sand hopper is in operation and shall maintain a minimum overall control efficiency of ~~84.15~~**74.3**% in order to comply with this limit.

(c) The resin usage for the Pepset core machine shall not exceed 829,838 pounds of resin per 12 consecutive month period, with compliance determined at the end of each month. Catalyst usage for the Pepset core machine shall not exceed 35,268 pounds of VOC catalyst per 12 consecutive month period, with compliance determined at the end of each month.

(d) The VOC emissions from resin usage in the Pepset core machine shall not exceed 0.05 pound per pound of resin.

(e) The VOC emissions from catalyst usage in the Pepset core machine shall not exceed 1.53 pounds per ton of cores.

This sand throughput limit for the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper**,** ~~and~~ the ~~VOC,~~ PM and PM10 emission limits**, the resin and catalyst usage limits and the VOC emission limits for the Pepset core machine** will limit total VOC, PM, and PM10 emissions from all emission units installed in 1979 to less than 40, 25, and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.7.10 Record Keeping Requirement

(a) To document compliance with Condition D.7.1(a), the Permittee shall maintain records of the sand throughput to the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper for each month.

(b) **To document compliance with Condition D.7.1(c), the Permittee shall maintain records of the resin and catalyst usage for the Pepset core machine for each month.**

(c) To document compliance with Condition D.7.6, the Permittee shall maintain records of visible emission notations of the stack exhaust for the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, ~~the two (2) core and mold sand silos,~~ and the core and mold sand hopper once per shift.

(~~c~~**d**) To document compliance with Condition D.7.7, the Permittee shall maintain the following:

(1) Records of the Inlet and outlet differential static pressure once per shift during normal operation when venting to the atmosphere; and

(2) Documentation of the dates vents are redirected.

(~~d~~**e**) To document compliance with Condition D.7.8, the Permittee shall maintain records of the results of the inspections required under Condition D.7.8 and the dates the vents are redirected.

(~~e~~**f**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.7.1(a) **and D.7.1(c)** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

A quarterly report form has been added to the Part 70 permit for the resin and catalyst usage limits for the Pepset core machine.

23. Some additional changes have been made to section A.2 and the associated D sections for some of the baghouse ID numbers where some baghouses that were previously unidentified now have ID numbers and some existing ID numbers have been corrected. The revised section A.2 now reads as follows (note that some changes made that have been identified previously in this addendum are included here again):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) one (1) natural gas fired preheater, installed in 1991, rated at 12.976 million (MM) British thermal units (Btu) per hour, with a maximum metal throughput of 20 tons per hour, exhausting inside the building;
(b) four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4), each installed in 1991, each capable of melting a maximum of 5 tons per hour of metal, all exhausting inside the building;
(c) one (1) charge handling system, installed in 1991, processing a maximum of 20 tons of metal per hour, controlled by one (1) dust collector (ID No. 39-DC-4), exhausting through one (1) stack (ID No. 39-DC-4);
(d) one (1) electric holding furnace, installed in 1971, with a maximum molten metal storage capacity of 20 tons; the transfer of metal from the carrier ladle to the holding furnace exhausts through one (1) stack (ID No. 36-E-24);
(e) one (1) mold making operation (ID No. A-Line Molding) consisting of the following:
    (1) one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 1984, controlled by one (1) baghouse (ID No. 36-1-DC-~~5~~**8**), exhausting through one (1) stack (ID No. 36-1-DC-~~5~~**8**), and one (1) 50 ton capacity bond silo, installed in 1984, controlled by one (1) bin vent;
    (2) one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-~~5~~**8**), exhausting through one (1) stack (ID No. 36-1-DC-~~5~~**8**);
    (3) one (1) metal pouring operation (ID No. A-Line Pouring), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, **and a maximum throughput of 10 tons of core sand per hour,** exhausting through stack 36-E-12;
    (4) one (1) metal cooling operation (ID No. A-Line Cooling), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, **and a maximum throughput of 10 tons of core sand per hour,** exhausting through exhaust fans 32-E-2 and 32-E-1; and

(5) one (1) mold and casting shakeout operation (ID No. A-Line Shakeout), installed in 1964, with a maximum metal casting throughput of 24 tons per hour, **and a maximum throughput of 10 tons of core sand per hour,** controlled by one (1) baghouse (ID No. 36-1-DC-~~6~~**8**), exhausting through one (1) stack (ID No. 36-1-DC-~~6~~**8**);

(f) one (1) mold making operation (ID No. B-Line Molding) consisting of the following:

(1) one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 1987, controlled by one (1) baghouse (ID No. 36-1-DC-~~3~~**7**), exhausting through one (1) stack (ID No. 36-1-DC-~~3~~**7**), and one (1) 50 ton capacity bond silo, installed in 1987, controlled by one (1) bin vent;

(2) one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-~~3~~**7**), exhausting through one (1) stack (ID No. 36-1-DC-~~3~~**7**);

(3) one (1) metal pouring operation (ID No. B-Line Pouring), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, **and a maximum throughput of 4 tons of core sand per hour,** exhausting through stack 36-E-5;

(4) one (1) metal cooling operation (ID No. B-Line Cooling), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, **and a maximum throughput of 4 tons of core sand per hour,** exhausting partially through stack 36-E-6; and

(5) one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, **and a maximum throughput of 4 tons of core sand per hour,** controlled by one (1) baghouse (ID No. 36-1-DC-~~3~~**7**), exhausting through one (1) stack (ID No. 36-1-DC-~~3~~**7**);

(g) one (1) mold making operation (ID No. Floor Molding) consisting of the following:

(1) one (1) High Speed Continuous Sand Mixer (ID Mixer) and associated High Speed Continuous Sand Mixer hopper, each installed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by one (1) baghouse (ID ~~Baghouse N~~ **30-DC-6**), exhausting ~~inside the building~~ **through one (1) stack (ID No. 30-DC-6)**.

(2) one (1) metal pouring operation (ID No. Floor Pouring), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, **a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour,** exhausting inside the building;

(3) one (1) metal cooling operation (ID No. Floor Cooling), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, **a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour,** exhausting inside the building;

(4) one (1) mold shakeout operation (ID No. Floor Shakeout), installed in 1922, with a maximum metal casting throughput of 6 tons per hour**, a maximum throughput of 3 tons of core sand per hour, and a maximum throughput of 26 tons of mold sand per hour**. The Floor Shakeout is uncontrolled and exhausts inside the building;

(h) one (1) casting knockout station (ID Knockout Station), installed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by one (1) baghouse (ID No. 8-DC-2), exhausting inside the building.

(i) one (1) Wheelabrator shot blast machine (ID No. Shot Blast), installed in 1990, with a maximum throughput of 31 tons of iron castings per hour, controlled by ~~two (2)~~ **one (1)** baghouse~~s~~ (ID No. 36-DC-8 ~~and 36-DC-8A~~), exhausting inside the building;

(j) one (1) Chill Iron shot blast machine (ID No. Chill Iron Shot Blast), installed in 1972, with a maximum throughput of 120 pounds of castings per hour, controlled by one (1) baghouse (ID No. 8-DC-~~3~~**2**), exhausting inside the building;

(k) one (1) paint spray booth (ID No. Spray Painting), installed in 1982, using a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards and a maximum of 10 gallons per year of paint thinner, with dry filters for particulate matter overspray control, exhausting through one (1) stack (ID No. 5-E-1);

(l) one (1) assembled boiler rating and certification operation, with a maximum boiler heat input rating of 7.216 million British thermal units (MMBtu) per hour, combusting natural gas, No. 2 distillate fuel oil, or propane;

(m) One (1) indoor scrap handling operation consisting of the following:

(1) one (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour, with one (1) baghouse **(ID No. 39-DC-5)** for control of particulate matter emissions, exhausting through one (1) stack (ID No. ~~1~~**39-DC-5**);

(2) one (1) rotary reclaimer, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse **(ID No. 39-DC-5)** for control of particulate matter emissions, exhausting through one (1) stack (ID No. ~~1~~ **39-DC-5**);

(3) one (1) sand and metal conveyor, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse **(ID No. 39-DC-5)** for control of particulate matter emissions, exhausting through one (1) stack (ID No. ~~1~~ **39-DC-5**); and

(4) one (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse **(ID No. 39-DC-5)** for control of particulate matter emissions, exhausting through one (1) stack (ID No. ~~1~~ **39-DC-5**).

(n) one (1) pneumatically conveyed raw sand storage silo for the High Speed Continuous Sand Mixer, with a maximum sand storage capacity of 75 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse **(ID No. 39-DC-5)** for control of particulate matter emissions, exhausting through one (1) stack (ID No. ~~1~~ **39-DC-5**);

(o) two (2) 200 ton capacity core and mold sand silos (ID Nos. Silo #1 and Silo #2), both installed in 1950, each with a maximum sand throughput of 16.8 tons per hour, both controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **37-1-DC-3**), exhausting through one (1) stack **(ID No. 37-1-DC-3)**;

(p) one Isocure core making operation consisting of the following:

(1) one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), exhausting through one (1) stack **(ID No. 36-1-DC-7)**;

(2) one (1) Isocure core machine, installed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by one (1) natural gas fired afterburner (ID No. Afterburner J), rated at 1.4 MMBtu per hour, exhausting through one (1) stack (ID No. 37-1-E-2); and

(3) one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

(q) one (1) Pepset core making operation consisting of the following:

(1) one (1) enclosed Pepset sand mixer, installed in 1979, consisting of the Pepset Large Core Mixer and the Pepset Small Core Mixer, with a maximum sand throughput of 6.0 tons per hour;
(2) one (1) Pepset core machine, installed in 1979, with a maximum throughput of 6.0 tons per hour of sand, exhausting inside the building; and
(3) one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

(r) one (1) Warm Box core making operation consisting of the following:
(1) two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;
(2) three (3) Warm Box core machines (ID Warm Box Core Machines #1, #2, and #3), installed in 1971, 1976, and 1981, respectively, each with a maximum throughput of 1.73 tons per hour of sand, all exhausting inside the building; and
(3) one (1) 10 ton capacity Warm Box line sand hopper, installed in 197~~9~~**1**, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1) baghouse (ID ~~Core Sand Baghouse~~ **36-1-DC-7**), which exhausts through one (1) stack **(ID No. 36-1-DC-7)**;

(s) one (1) enclosed 10 ton capacity core and mold sand hopper, elevator, and conveyor, installed in 1975, with a maximum sand throughput of 16.8 tons per hour; and
(t) one (1) dip tank (ID No. Dip Tank Painting), installed in 1970, using a maximum of 5.8 pounds of coating per hour to coat metal parts, exhausting through one (1) stack (ID No. 3-E-1).

The following conditions have been revised to reflect the above changes as follows:

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 54 and 60 months after issuance of this permit, in order to demonstrate compliance with Conditions D.4.1 and D.4.2, the Permittee shall perform PM and PM-10 testing on each of the baghouses controlling the High Speed Continuous Sand Mixer hopper, the Knockout Station and the Wheelabrator shot blast machine, identified as ~~Baghouse N~~ **30-DC-6**, 8-DC-2 and 36-DC-8, respectively, and the Floor Shakeout operation using methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

D.6.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

(a) The total PM and PM10 emissions from the indoor scrap handling operation and the raw sand storage silo that are controlled by the baghouse that exhausts through stack No. ~~1~~ **39-DC-5** shall not exceed 0.10 and 0.06 pound per ton of metal and sand throughput, respectively.

(b) The throughput of sand from the raw sand storage silo shall not exceed 42,574 tons of sand per twelve (12) consecutive month period**, with compliance determined at the end of each month**.

The above PM and PM10 emission limitations and the sand throughput limitation will limit total PM and PM10 emissions from the indoor scrap handling operation, the raw sand storage silo, and the High Speed Continuous Sand Mixer (listed in section D.4) to less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 (PSD) and 40 CFR 52.21 do not apply.

D.6.2 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the emission units listed in the table below shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable Particulate Emissions (lb/hr)
Crusher	15.00	25.16
Rotary Reclaimer	25.00	35.43
Spent Sand Storage Silo	10.00	19.18
Sand and Metal Conveyor	25.00	35.43
Raw Sand Storage Silo	10.00	19.18

(b) For purposes of demonstrating compliance with the particulate emission limits for the indoor scrap handling operation and the raw sand storage silo, all of which are controlled by the baghouse that exhausts through stack No. ~~1~~ **39-DC-5**, the allowable particulate emission rate from stack No. ~~1~~ **39-DC-5** shall be limited to 134.38 pounds per hour.

D.6.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period within 60 days after achieving maximum capacity, but no later than 180 days after startup, in order to demonstrate compliance with Conditions D.6.1 and D.6.2, the Permittee shall perform PM and PM-10 testing on the baghouse that exhausts through stack No. ~~1~~ **39-DC-5** utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Some changes have also been made to paragraph (f)(1) of section A.3, Insignificant Activities, to correct some baghouse ID numbers as follows:

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(f) Other categories with emissions below insignificant thresholds:

(1) one (1) machining operation (ID No. Machining), modified in 1987, consisting of twenty eight (28) machines performing tapping, drilling, and reaming on the metal castings, with a maximum metal casting throughput of 20 tons per hour. Nine (9) machines are controlled by one (1) baghouse (ID No. ~~I~~ **8-DC-2**), two (2) machines are controlled by one (1) baghouse (ID No. ~~K~~ **8-DC-1**), and seventeen (17) machines are controlled by coolant. Potential PM and PM-10 emissions before control are less than twenty-five (25) pounds per day. ~~[326 IAC 6-3-2]~~

As noted in item 9 of the changes made by the OAQ above, the machining operation is exempt from the requirements of 326 IAC 6-3-2, therefore, the reference to it has been removed from the equipment description and section D.8 has been removed from the Part 70 permit.

24. On September 13, 2002, Gary Connor of Weil-McLain requested that the pressure drop ranges for all baghouses at the source, except the two baghouses identified as 36-1-DC-8 and 36-1-DC-7, be changed to be between 1.0 and 6.0 inches of water. He requested that the pressure drop range for each of the two baghouses identified as 36-1-DC-8 and 36-1-DC-7 be changed to be between 2.0 and 8.0 inches of water. Condition D.2.7, Parametric Monitoring, has been revised as shown under Response #4 above for baghouse 36-1-DC-8 and condition D.7.7, Parametric Monitoring, has been revised as shown under Response #8 above for baghouse 36-1-DC-7. Conditions D.1.7, D.3.7, D.4.8, D.5.9, and D.6.7 have been revised as follows:

D.1.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the dust collector used in conjunction with the charge handling system, at least once per shift when the charge handling system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the dust collector is outside the normal range of ~~2.0~~ **1.0** and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.3.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the B-Line Shakeout operation and the B-Line Holding Silo and Muller, at least once per shift when the B-Line Shakeout operation and the B-Line Holding Silo and Muller are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and ~~6.0~~ **8.0** inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure

reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine, at least once per shift when the High Speed Continuous Sand Mixer hopper, the Knockout Station, and the Wheelabrator shot blast machine are in operation when venting to the atmosphere. When for any one reading, the pressure drop across any of the baghouses is outside the normal range of ~~2.0~~ **1.0** and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the Chill Iron shot blast machine, at least once per shift when the Chill Iron shot blast machine is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of ~~2.0~~ **1.0** and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.6.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse controlling the indoor scrap handling system and the raw sand storage silo at least once per shift when the indoor scrap handling system and the raw sand storage silo are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of ~~3.0~~ **1.0** and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance

with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit

Source Background and Description

Source Name:	**Weil-McLain**
Source Location:	**500 Blaine Street, Michigan City, IN 46360-2388**
County:	**LaPorte**
SIC Code:	**3321**
Operation Permit No.:	**T091-6295-00020**
Permit Reviewer:	**Trish Earls/EVP**

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from Weil-McLain relating to the operation of a stationary gray iron foundry producing gray iron boilers.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) one (1) natural gas fired preheater, installed in 1991, rated at 12.976 million (MM) British thermal units (Btu) per hour, with a maximum metal throughput of 20 tons per hour, exhausting inside the building;
(b) four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4), each installed in 1991, each capable of melting a maximum of 5 tons per hour of metal, all exhausting inside the building;
(c) one (1) charge handling system, installed in 1991, processing a maximum of 20 tons of metal per hour, controlled by one (1) dust collector (ID No. 39-DC-4), exhausting through one (1) stack (ID No. 39-DC-4);
(d) one (1) electric holding furnace, installed in 1971, with a maximum molten metal storage capacity of 20 tons, exhausting through one (1) stack (ID No. 36-E-24);
(e) one (1) mold making operation (ID No. A-Line Molding) consisting of the following:
    (1) one (1) 250 ton capacity holding silo (ID No. A-Line Holding Silo), installed in 1950, controlled by one (1) baghouse (ID No. 36-1-DC-5), exhausting through one (1) stack (ID No. 36-1-DC-5);
    (2) one (1) sand muller (ID No. A-Line Muller), installed in 1984, with a maximum mold sand throughput of 200 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-5), exhausting through one (1) stack (ID No. 36-1-DC-5);
    (3) one (1) metal pouring operation (ID No. A-Line Pouring), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, exhausting through stack 36-E-12;
    (4) one (1) metal cooling operation (ID No. A-Line Cooling), installed in 1964, with a maximum throughput of 24 tons per hour of molten metal, exhausting through exhaust fans 32-E-2 and 32-E-1; and
    (5) one (1) mold and casting shakeout operation (ID No. A-Line Shakeout), installed in

1964, with a maximum metal casting throughput of 24 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-6), exhausting through one (1) stack (ID No. 36-1-DC-6);

(f) one (1) mold making operation (ID No. B-Line Molding) consisting of the following:
- (1) one (1) 75 ton capacity holding silo (ID No. B-Line Holding Silo), installed in 1950, controlled by one (1) baghouse (ID No. 36-1-DC-3), exhausting through one (1) stack (ID No. 36-1-DC-3);
- (2) one (1) sand muller (ID No. B-Line Muller), installed in 1987, with a maximum mold sand throughput of 100 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-3), exhausting through one (1) stack (ID No. 36-1-DC-3);
- (3) one (1) metal pouring operation (ID No. B-Line Pouring), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, exhausting through stack 36-E-5;
- (4) one (1) metal cooling operation (ID No. B-Line Cooling), installed in 1986, with a maximum throughput of 9 tons per hour of molten metal, exhausting partially through stack 36-E-6; and
- (5) one (1) mold shakeout operation (ID No. B-Line Shakeout), installed in 1987, with a maximum metal casting throughput of 9 tons per hour, controlled by one (1) baghouse (ID No. 36-1-DC-3), exhausting through one (1) stack (ID No. 36-1-DC-3);

(g) one (1) mold making operation (ID No. Floor Molding) consisting of the following:
- (1) one (1) High Speed Continuous Sand Mixer (ID Mixer) and associated High Speed Continuous Sand Mixer hopper, each installed in 2001, with a maximum mold sand throughput of 42 tons per hour, with the hopper controlled by one (1) baghouse (ID Baghouse N), exhausting inside the building.
- (2) one (1) metal pouring operation (ID No. Floor Pouring), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, exhausting inside the building;
- (3) one (1) metal cooling operation (ID No. Floor Cooling), installed in 1922, with a maximum throughput of 6 tons per hour of molten metal, exhausting inside the building;
- (4) one (1) mold shakeout operation (ID No. Floor Shakeout), installed in 1922, with a maximum metal casting throughput of 6 tons per hour. The Floor Shakeout is uncontrolled and exhausts inside the building;

(h) one (1) casting knockout station (ID Knockout Station), installed in 1965, with a maximum throughput of 15 tons of iron castings per hour, controlled by one (1) baghouse (ID No. 8-DC-2), exhausting inside the building.

(i) one (1) Wheelabrator shot blast machine (ID No. Shot Blast), installed in 1990, with a maximum throughput of 31 tons of iron castings per hour, controlled by two (2) baghouses (ID No. 36-DC-8 and 36-DC-8A), exhausting inside the building;

(j) one (1) Chill Iron shot blast machine (ID No. Chill Iron Shot Blast), installed in 1972, with a maximum throughput of 120 pounds of castings per hour, controlled by one (1) baghouse (ID No. 8-DC-3), exhausting inside the building;

(k) one (1) paint spray booth (ID No. Spray Painting), installed in 1982, using a high volume low pressure (HVLP) coating application system, using a maximum of 9.8 pounds of coating per hour to coat metal base boards, with dry filters for particulate matter overspray control, exhausting through one (1) stack (ID No. 5-E-1);

(l) one (1) assembled boiler rating and certification operation, with a maximum boiler heat input rating of 7.216 million British thermal units (MMBtu) per hour, combusting natural gas, No. 2 distillate fuel oil, or propane;

(m) One (1) indoor scrap handling operation consisting of the following:
- (1) one (1) metal scrap crusher, with a maximum scrap metal throughput of 15 tons per hour, with one (1) baghouse for control of particulate matter emissions, exhausting through one (1) stack (ID No. 1);
- (2) one (1) rotary reclaimer, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse for control of particulate

matter emissions, exhausting through one (1) stack (ID No. 1);

(3) one (1) sand and metal conveyor, with maximum scrap metal and sand throughputs of 15 and 10 tons per hour, respectively, with one (1) baghouse for control of particulate matter emissions, exhausting through one (1) stack (ID No. 1); and

(4) one (1) enclosed conveyor system transporting spent sand to spent sand storage silo, with a maximum sand storage capacity of 100 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse for control of particulate matter emissions, exhausting through one (1) stack (ID No. 1).

(n) one (1) pneumatically conveyed raw sand storage silo for the High Speed Continuous Sand Mixer, with a maximum sand storage capacity of 75 tons, and a maximum sand throughput of 10 tons per hour, with one (1) baghouse for control of particulate matter emissions, exhausting through one (1) stack (ID No. 1); and

(o) two (2) 200 ton capacity core and mold sand silos (ID Nos. Silo #1 and Silo #2), both installed in 1950, each with a maximum sand throughput of 16.8 tons per hour, both controlled by one (1) baghouse (ID Core Sand Baghouse), exhausting through one (1) stack.

Note: The original scrap handling system, installed in 1964, has been replaced by the indoor scrap handling operation, permitted under Significant Source Modification No. 091-14688-00020, issued on November 26, 2001.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

(a) one Isocure core making operation consisting of the following:

(1) one (1) Isocure sand mixer, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID Core Sand Baghouse), exhausting through one (1) stack;

(2) one (1) Isocure core machine, installed in 1975, with a maximum throughput of 5.8 tons per hour of sand, with VOC and HAP emissions controlled by one (1) natural gas fired afterburner (ID No. Afterburner J), rated at 1.4 MMBtu per hour, exhausting through one (1) stack (ID No. 37-1-E-2); and

(3) one (1) 10 ton capacity Isocure line sand hopper and elevator, installed in 1975, with a maximum sand throughput of 5.8 tons per hour, controlled by one (1) baghouse (ID Core Sand Baghouse), which exhausts through one (1) stack;

(b) one (1) Pepset core making operation consisting of the following:

(1) one (1) enclosed Pepset sand mixer, installed in 1979, consisting of the Pepset Large Core Mixer and the Pepset Small Core Mixer, with a maximum sand throughput of 6.0 tons per hour;

(2) one (1) Pepset core machine, installed in 1979, with a maximum throughput of 6.0 tons per hour of sand, exhausting inside the building; and

(3) one (1) 10 ton capacity Pepset line sand hopper, installed in 1979, with a maximum sand throughput of 6.0 tons per hour, controlled by one (1) baghouse (ID Core Sand Baghouse), which exhausts through one (1) stack;

(c) one (1) Warm Box core making operation consisting of the following:

(1) two (2) Warm Box mixers (ID Nos. Mixer 1 and Mixer 2), installed in 1971 and 1981, respectively, each with maximum throughputs of 3.5 and 1.5 tons of sand per hour, respectively, both controlled by one (1) baghouse (ID Core Sand Baghouse), which exhausts through one (1) stack;

(2) three (3) Warm Box core machines (ID Warm Box Core Machines #1, #2, and #3), installed in 1971, 1976, and 1981, respectively, each with a maximum throughput of 1.73 tons per hour of sand, all exhausting inside the building; and

(3) one (1) 10 ton capacity Warm Box line sand hopper, installed in 1979, with a maximum sand throughput of 5.0 tons of sand per hour, controlled by one (1) baghouse (ID Core Sand Baghouse), which exhausts through one (1) stack;

(d) one (1) enclosed 10 ton capacity core and mold sand hopper, elevator, and conveyor, installed in 1975, with a maximum sand throughput of 16.8 tons per hour; and

(e) one (1) dip tank (ID No. Dip Tank Painting), installed in 1970, using a maximum of 5.8 pounds of coating per hour to coat metal parts, exhausting through one (1) stack (ID No. 3-E-1).

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
  (1) one (1) natural gas fired thermal oxidizer (ID No. Afterburner J), rated at 1.4 MMBtu per hour, controlling VOC and HAP emissions from the Isocure core machine, exhausting through one (1) stack (ID No. 37-1-E-2);

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

(c) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(d) Paved and unpaved roads and parking lots with public access.

(e) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

(f) Other categories with emissions below insignificant thresholds:
  (1) one (1) machining operation (ID No. Machining), modified in 1987, consisting of twenty eight (28) machines performing tapping, drilling, and reaming on the metal castings, with a maximum metal casting throughput of 20 tons per hour. Nine (9) machines are controlled by one (1) baghouse (ID No. I), two (2) machines are controlled by one (1) baghouse (ID No. K), and seventeen (17) machines are controlled by coolant. Potential PM and PM-10 emissions before control are less than twenty-five (25) pounds per day.
  (2) the following petroleum aboveground storage tanks (AST):
    (A) one (1) 2,000 gallon diesel fuel AST;
    (B) two (2) 1,000 gallon propane ASTs;
    (C) one (1) 275 gallon Dextron EF AST;
    (D) one (1) 275 gallon anti-freeze AST;
    (E) one (1) 275 gallon motor oil AST;
    (F) one (1) 275 gallon hydraulic oil AST;
    (G) two (2) 290 gallon Super Slik totes;
    (H) five (5) 300 gallon fuel oil ASTs;
    (I) one (1) 120 gallon propane AST;
    (J) one (1) 275 gallon hydraulic oil AST;
    (K) one (1) 275 gallon fuel oil AST;
    (L) one (1) 500 gallon propane AST;
    (M) one (1) 2,000 gallon fuel oil AST; and
    (N) one (1) 800 gallon foam AST.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) OP 46-09-82-0099, issued on August 24, 1978;
(b) OP 46-09-86-0167, issued on November 1, 1983;
(c) Registration, issued December 19, 1984;
(d) CP 091-2183-00020, issued on October 17, 1991;
(e) Significant Source Modification No. 091-12963-00020, issued on April 6, 2001; and
(f) Significant Source Modification No. 091-14688-00020, issued on November 26, 2001.

All conditions from previous approvals were incorporated into this Part 70 permit.

Enforcement Issue

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively incomplete Part 70 permit application for the purposes of this review was received on July 19, 1996. Additional information received on August 29, 1996 makes the Part 70 permit application administratively complete. Additional information was also received on September 2, 1999, March 19, 2001, August 6, 2001, and November 26, 2001.

A notice of completeness letter was mailed to the source on January 17, 1997.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (25 pages).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	greater than 250
PM-10	greater than 250

SO_2	less than 100
VOC	greater than 250
CO	less than 100
NO_x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Naphthalene	less than 10
Formaldehyde	less than 10
Xylene	less than 10
Triethylamine	greater than 10
Cumene	less than 10
Methanol	greater than 10
Perchloroethylene	less than 10
Lead	less than 10
Manganese	less than 10
Chromium	less than 10
Cobalt	less than 10
Nickel	less than 10
Arsenic	less than 10
Cadmium	less than 10
Selenium	less than 10
TOTAL	greater than 25

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10 and VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2000 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	not reported
PM-10	93.39
SO_2	5.21
VOC	49.00
CO	12.61
NO_x	27.82
HAP (specify)	N/A

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 operating permit.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Electric Induction Furnaces(1)	5.36	9.07	0.0	0.0	0.0	0.0	0.81
Charge Handling(1)	8.67	5.20	0.0	0.0	0.0	0.0	0.04
A-Line Pouring(1)	35.60	73.30	0.70	5.00	0.0	0.40	0.77
A-Line Cooling(1)	49.80	49.80	0.0	0.0	0.0	0.0	0.77
A-Line Shakeout(1)	12.40	8.70	0.0	42.70	0.0	0.0	0.06
A-Line Muller and Sand Handling	24.90	3.70	0.0	0.0	0.0	0.0	0.0
B-Line Pouring(2)	66.20	32.40	0.32	2.20	0.0	0.16	0.34
B-Line Cooling(2)	22.10	22.10	0.0	0.0	0.0	0.0	0.34
B-Line Shakeout(2)	10.3	7.2	0.0	18.6	0.0	0.0	0.03
B-Line Muller and Sand Handling	7.0	1.0	0.0	0.0	0.0	0.0	0.0
Floor Pouring	110.40	54.10	0.53	3.70	0.0	0.26	0.57
Floor Cooling	36.8	36.8	0.0	0.0	0.0	0.0	0.57
Floor Shakeout	59.4	58.9	0.0	31.5	0.0	0.0	0.40
Knockout Station	22.90	16.00	0.0	78.8	0.0	0.0	0.11
High Speed Continuous Sand Mixer and Sand Handling(3)	0.08	0.01	0.0	24.9	0.0	0.0	1.07
Isocure Core Machine	0.0	0.0	0.0	8.62	0.0	0.0	7.78
Isocure Sand Mixer and Sand Handling	14.5	2.17	0.0	16.5	0.0	0.0	0.38
Pepset Core Machine(4)	0.0	0.0	0.0	14.15	0.0	0.0	2.41
Pepset Sand Mixer(4)	0.0	0.0	0.0	9.7	0.0	0.0	0.57

Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Pepset Line Sand Handling(4)	4.71	0.71	0.0	0.0	0.0	0.0	0.0
Warm Box Core Machines	0.0	0.0	0.0	61.5	0.0	0.0	61.5
Warm Box Mixers 1 and 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Warm Box Sand Handling	12.5	1.87	0.0	0.0	0.0	0.0	0.0
Controlled Machining**(1)	0.04	0.02	0.0	0.0	0.0	0.0	0.0
Uncontrolled Machining**(1)	0.36	0.16	0.0	0.0	0.0	0.0	0.0
Wheelabrator Shot Blast(1)	12.7	1.27	0.0	0.0	0.0	0.0	0.0
Chill Iron Shot Blast	0.13	0.01	0.0	0.0	0.0	0.0	0.0
New Scrap Handling Crusher	3.30	0.33	0.0	0.0	0.0	0.0	0.0
Rotary Reclaimer	2.30	1.62	0.0	0.0	0.0	0.0	0.0
Raw Sand Storage Silo(4)	0.84	0.13	0.0	0.0	0.0	0.0	0.0
Spent Sand Storage Silo	1.73	0.26	0.0	0.0	0.0	0.0	0.0
Sand & Metal Conveyor	15.90	2.40	0.0	0.0	0.0	0.0	0.0
Preheater	0.11	0.43	0.03	0.31	4.77	5.68	0.0
Boiler Certification	0.50	0.80	6.5	0.20	2.7	4.8	0.0
Surface Coating	0.31	0.31	0.0	10.01	0.0	0.0	0.0
Isocure Core Machine Afterburner**	0.01	0.05	0.0	0.03	0.52	0.61	0.0
Unpaved Roads**	0.44	0.15	0.0	0.0	0.0	0.0	0.0
Total Emissions	542.29	390.97	8.08	328.42	7.99	11.91	78.52

** These are insignificant activities.

(1) Emissions are after control where applicable and after a metal throughput limitation of 71,200 tons per year.

(2) Emissions are after control where applicable and after a metal throughput limitation of 31,500 tons per year.

(3) Emissions are after control and a sand throughput limitation from the raw sand storage silo to the High Speed Continuous Sand Mixer to limit VOC emissions from the mixer below PSD significant thresholds and to avoid the requirements of 326 IAC 8-1-6 (BACT) for the mixer.

(4) Emissions after a sand throughput limitation to the Pepset core making operation of 16,500 tons per year.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	attainment
SO_2	maintenance
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) LaPorte County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This existing secondary metal production source, which is one of the 28 listed source categories, is a major PSD source. However, the source did not go through PSD review based on the following information:

(a) The electric holding furnace, the A-Line Holding Silo, the A-Line Pouring operation, the A-Line Cooling operation, the A-Line Shakeout operation, the B-Line Holding Silo, the Floor Pouring operation, the Floor Cooling operation, the Floor Shakeout operation, the Knockout Station, the Isocure Sand Mixer, the Isocure core machine, the Isocure line sand hopper and elevator, the Warm Box Mixer 1, the Warm Box core machines #1 and #2, the Chill Iron shot blast machine, and the dip tank, were each constructed prior to the rule applicability date of August 7, 1977, therefore, they are not subject to the requirements of this rule. However, the total potential PM, PM10, and VOC emissions from these emission units are greater than 100 tons per year, therefore, the source was considered a major PSD source with respect to the subsequent modifications to the source.

(b) The sand throughput to the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper, all installed in 1979, shall not exceed 16,500 tons per twelve (12) consecutive month period. Total VOC emissions from the Pepset Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput (based on a 1997 study performed by the Ohio Cast Metals Association (OCMA)). This is equivalent to a VOC emission limit of 2.2 pounds per hour. Total VOC emissions from the Pepset core machine shall not exceed 1.71 pounds per ton of sand throughput. This is equivalent to a VOC emission limit of 3.22 pounds per hour. Based on 8,760 hours of operation per 12 consecutive month period, this throughput limit will limit VOC emissions from the Pepset Sand Mixer and the Pepset core machine to 9.7 and 14.15 tons per twelve (12) consecutive month period, respectively.

Total PM and PM10 emissions from the Pepset line sand hopper and the Warm Box line sand hopper, both installed in 1979, shall not exceed 5.7 and 3.4 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the Pepset line sand hopper and the Warm Box line sand hopper to 24.9 and 14.9 tons per year, respectively.

This sand throughput limit for the Pepset Sand Mixer, the Pepset core machine, and the Pepset line sand hopper and the PM and PM10 emission limits will limit total VOC, PM, and PM10 emissions from all emission units installed in 1979 to less than 40, 25, and 15 tons per year, respectively, so that the requirements of 326 IAC 2-2 do not apply. The baghouse controlling PM and PM10 emissions from the Warm Box line sand hopper and the Pepset line sand hopper shall be in operation at all times that the Warm Box line and Pepset line sand hoppers are in operation in order to comply with this limit.

(c) The potential emissions of VOC from the Warm Box Core Machine 3, installed in 1981, are less than 40 tons per year, therefore, the requirements of 326 IAC 2-2 do not apply. The Warm Box Mixer 2, also installed in 1981, uses a non-VOC resin and has no VOC emissions.

(d) Potential PM, PM10, and VOC emissions from the paint spray booth, installed in 1982, are less than 25, 15, and 40 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 do not apply.

(e) The throughput of sand to the A-Line Muller shall not exceed 464,200 tons per twelve (12) consecutive month period. PM and PM10 emissions from the A-Line Muller, installed in 1984, shall not exceed 5.7 and 3.4 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the A-Line Muller to 24.9 and 14.9 tons per year, respectively. Since PM and PM10 emissions are limited to less than 25 and 15 tons per year, respectively, the requirements of 326 IAC 2-2 do not apply. The baghouse controlling PM and PM10 emissions from the A-Line Muller shall be in operation at all times that the A-Line Muller is in operation to comply with this limit.

(f) The throughput of metal to each of the B-Line Pouring, B-Line Cooling, and B-Line Shakeout operations, installed in a twelve month period from 1986 to 1987, shall not exceed 31,500 tons per twelve (12) consecutive month period. The throughput of sand to the B-Line Muller shall not exceed 130,000 tons per twelve (12) consecutive month period. Total PM and PM10 emissions from the B-Line Shakeout operation and the B-Line Muller shall not exceed 7.0 and 2.6 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the B-Line Shakeout operation and the B-Line Muller to 30.66 and 11.4 tons per year, respectively. The B-Line Molding operation replaced an existing floor molding operation in 1986 which had a maximum metal throughput of 70 tons/day. The net emissions increase of each regulated pollutant from this replacement, including the throughput limits listed above and the PM and PM10 emission limits on the B-Line Shakeout and B-Line Muller, plus potential emissions from the controlled and uncontrolled machining operations also installed in 1987, are less than the PSD significant modification thresholds, therefore, the requirements of 326 IAC 2-2 do not apply. The baghouse controlling PM and PM10 emissions from the B-Line Shakeout and the B-Line Muller shall be in operation at all times that the B-Line Shakeout and the B-Line Muller are in operation to ensure that the PSD significant modification thresholds are not exceeded.

(g) The throughput of metal to the Wheelabrator shot blast machine, installed in 1990, shall not exceed 71,200 tons per twelve (12) consecutive month period. Total PM and PM10 emissions from the Wheelabrator shot blast machine shall not exceed 5.7 and 3.4 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the Wheelabrator shot blast machine to 24.9 and 14.9 tons per year, respectively. Since PM and PM10 emissions are limited to less than 25 and 15 tons per year, respectively, the requirements of 326 IAC 2-2 do not apply. The baghouses controlling PM and PM10 emissions from the Wheelabrator shot blast machine shall be in operation at all times that the Wheelabrator shot blast machine is in operation to comply with this limit.

(h) Total PM and PM10 emissions from the four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4) and the charge handling system, all installed in 1991, shall not exceed 5.61 and 3.3 pounds per hour, respectively. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the four (4) electric induction furnaces (ID Nos. 1, 2, 3, and 4) and the charge handling system to 24.6 and 14.45 tons per year, respectively. The throughput of metal to each of the following facilities shall not exceed 71,200 tons per twelve (12) consecutive month period: (1) all four (4) electric induction furnaces; (2) the electric holding furnace; and (3) the charge handling system. The dust collector controlling PM and PM10 emissions from the charge handling system shall be in operation at all times that the charge handling system is in operation in order to comply with this limit. These emission limits combined with potential emissions from the preheater yield PM and PM10 emissions that are less than 25 and 15 tons per year, respectively. Therefore, the requirements of 326 IAC 2-2 do not apply.

(i) The throughput of sand to the High Speed Continuous Sand Mixer (ID Mixer), constructed in 2001, shall be limited to a maximum of 42,574 tons of sand per twelve (12) consecutive month period. Total VOC emissions from the High Speed Continuous Sand Mixer shall not exceed 1.17 pounds per ton of sand throughput (based on a 1997 study performed by the Ohio Cast Metals Association (OCMA)). This is equivalent to a VOC emission limit of 5.7 pounds per hour. Based on 8,760 hours of operation per 12 consecutive month period, this will limit total VOC emissions from the Mixer to less than 40 tons per year so that the requirements of this rule do not apply. Note that this unit was previously permitted in Significant Source Modification No. 091-12963-00020, issued April 6, 2001. This permit included a sand throughput limit for the mixer of 42,924 tons per year to limit VOC emissions to less than 40 tons per year. However, an error was discovered in the emission calculations performed for that permit, therefore, this limit is being corrected to 42,574 tons per year as stated above.

The total PM and PM10 emissions from the High Speed Continuous Sand Mixer, permitted in Significant Source Modification No. 091-12963-00020, issued April 6, 2001, and its associated sand hopper, that is controlled by the baghouse identified as Baghouse N that exhausts inside the building, shall not exceed 0.05 and 0.05 pound per hour, respectively, to ensure the requirements of 326 IAC 2-2 (PSD) do not apply. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the High Speed Continuous Sand Mixer and its associated hopper to 0.22 and 0.22 tons per year, respectively.

Pursuant to SSM 091-14688-00020, issued on November 26, 2001, the total PM and PM10 emissions from the indoor scrap handling operation and the raw sand storage silo, constructed in 2001, that are controlled by the baghouse that exhausts through stack No. 1 shall not exceed 5.63 and 3.35 pounds per hour, respectively, to ensure the requirements of 326 IAC 2-2 (PSD) do not apply. Based on 8,760 hours of operation per 12 consecutive month period, this limits PM and PM10 emissions from the indoor scrap handling operation and the raw sand storage silo to 24.66 and 14.67 tons per year, respectively.

This source will also limit the throughput of sand from the raw sand storage silo to a maximum of 42,574 tons of sand per twelve (12) consecutive month period.

The sand throughput limitation and the PM and PM10 emission limits will limit total PM and PM10 emissions from the Mixer, the indoor scrap handling operation and the raw sand storage silo to less than 25 and 15 tons per year, respectively, so that the requirements of this rule do not apply.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM10 and VOC. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2 (1), (2), or (3).

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, constructed after July 27, 1997, which has the potential to emit (PTE) 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs, must be controlled using technologies consistent with the Maximum Achievable Control Technology (MACT). The only emission units at this source that were constructed after July 27, 1997 are the High Speed Continuous Sand Mixer and hopper, the indoor scrap handling operation and the raw sand storage silo. The High Speed Continuous Sand Mixer has potential single and total HAP emissions of less than 10 and 25 tons per year, respectively, and there are no HAP emissions from the indoor scrap handling operation and the raw sand storage silo. Therefore, this rule does not apply.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating; Emission Limitations for Facilities Specified in 326 IAC 6-2-1(c))

Particulate emissions from each of the boilers tested in the boiler rating and certification operation, which are indirect heating facilities constructed after September 21, 1983, shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = Pounds of particulate matter emitted per million Btu heat input
Q = Total source maximum operating capacity rating in million Btu per hour heat input (7.216 MMBtu/hr).

Based on the above equation, particulate matter emissions from each of the boilers tested in the boiler rating and certification operation shall be limited to 0.65 pounds per million Btu heat input. However, pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu/hr, Pt shall not exceed 0.6 lb/MMBtu. Therefore, the PM emissions from each of the boilers tested in the boiler rating and certification operation shall not exceed 0.6 pounds per MMBtu. This is equivalent to a maximum particulate matter emission limit of 4.3 pounds per hour based on a maximum heat input rating of 7.216 MMBtu per hour. Potential particulate matter emissions from the highest rated boiler tested are less than this limit, therefore, the boiler rating and certification operation is in compliance with this rule.

326 IAC 6-3-2 (Process Operations)

(a) The particulate matter (PM) from the emission units listed in the table below shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10\ P^{0.67}$$

where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The allowable emissions for each facility are as follows:

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)	Controlled/Limited PM Emissions (lb/hr)	In Compliance?
Electric Induction Furnace #1	5.00	12.05	0.31	y
Electric Induction Furnace #2	5.00	12.05	0.31	y
Electric Induction Furnace #3	5.00	12.05	0.31	y
Electric Induction Furnace #4	5.00	12.05	0.31	y
Charge Handling	20.00	30.51	1.98	y
A-Line Pouring	234.00*	60.23	8.10	y
A-Line Cooling	24.00	34.48	11.40	y
A-Line Shakeout	24.00	34.48	2.80	y
A-Line Muller & Sand Handling	200.00	58.51	5.70	y
B-Line Pouring	113.00*	52.51	15.10	y
B-Line Cooling	9.00	17.87	5.00	y
B-Line Shakeout	9.00	17.87	2.40	y
B-Line Muller & Sand Handling	100.00	51.28	1.60	y
Floor Pouring	35.00*	41.32	25.20	y
Floor Cooling	6.00	13.62	8.40	y
Floor Shakeout	6.00	13.62	13.56	y
Knockout Station	15.00	25.16	5.23	y
High Speed Continuous Mixer & Floor Sand Handling	42.00	42.97	0.02	y

Emission Unit ID	Process Weight (tons/hr)	Allowable PM Emissions (lb/hr)	Controlled/Limited PM Emissions (lb/hr)	In Compliance?
Isocure Line Mixer and Sand Handling	5.80	13.31	3.31	y
Pepset Line Sand Handling	6.00	13.62	1.07	y
Warm Box Line Sand Handling	5.00	12.05	2.85	y
Machining	20.00	30.51	0.09	y
Wheelabrator Shot Blast	31.00	40.93	2.90	y
Chill Iron Shot Blast	0.06	0.62	0.03	y
Crusher	15.00	25.16	0.76	y
Rotary Reclaimer	25.00	35.43	0.53	y
Spent Sand Storage Silo	10.00	19.18	0.40	y
Sand and Metal Conveyor	25.00	35.43	3.60	y
Raw Sand Storage Silo	10.00	19.18	0.19	y

* Includes metal, sand, and core throughput.

The baghouses controlling the charge handling system, the A-Line Shakeout, the A-Line Muller, the B-Line Shakeout, the B-Line Muller, the Knockout Station, the High Speed Continuous Sand Mixer hopper, the Isocure Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box line sand hopper, the controlled machining operations, the Wheelabrator Shot Blast, the Chill Iron Shot Blast, and the indoor scrap handling operation shall be in operation at all times these facilities are in operation, in order to comply with these limits.

(b) The PM emissions from the paint spray booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The dry filters for PM overspray control shall be in operation at all times that the paint spray booth is in operation in order to comply with this limit.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The sulfur dioxide emissions from the boiler rating and certification operation burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A, Page 21 of 25 for detailed calculations). The source will comply with this rule by using No. 2 distillate fuel oil with a sulfur content of 0.5% or less.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Quality upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This rule applies to facilities constructed after January 1, 1980, which have potential VOC emissions of 25 tons or more per year. The A-Line Pouring operation, the A-Line Shakeout operation, the Floor Pouring operation, the Floor Shakeout operation, the Knockout Station, the Isocure Sand Mixer, the Isocure core machine, the Pepset Sand Mixer, the Pepset core machine, the Warm Box core machines #1 and #2, and the dip tank, all sources of VOC emissions, were each constructed prior to January 1, 1980, therefore, they are not subject to the requirements of this rule.

Total VOC emissions from the B-Line Pouring and B-Line Shakeout operations, constructed in 1986 and 1987, shall be limited to less than 25.0 tons per year. The throughput of metal to each of the B-Line Pouring and B-Line Shakeout operations shall not exceed 31,500 tons per twelve (12) consecutive month period. This metal throughput limit and maximum VOC emission rates for the B-Line Pouring and B-Line Shakeout operations of 0.14 and 1.2 pounds of VOC per ton of metal charged, respectively (based on U.S. EPA's FIRE data system, version 6.23), shall be used to demonstrate compliance with this limit.

This source will limit the throughput of sand to the High Speed Continuous Sand Mixer to a maximum of 42,574 tons of sand per twelve (12) consecutive month period, rolled on a monthly basis. This will limit total VOC emissions from the Mixer to less than 25 tons per year, therefore, the requirements of this rule do not apply.

Potential VOC emissions from the Warm Box core machine #3, constructed in 1981, are less than 25 tons per year, therefore, this emission unit is not subject to this rule.

Potential VOC emissions from the paint spray booth, constructed in 1982, are less than 25 tons per year, therefore, this emission unit is not subject to this rule.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

The paint spray booth, constructed in 1982, is not subject to the requirements of this rule. For facilities constructed after November 1, 1980, and prior to July 1, 1990, and not located in the specifically listed counties in 326 IAC 8-2-1(a)(3), this rule applies if potential VOC emissions are greater than 25 tons per year. Since potential VOC emissions from the paint spray booth are less than 25 tons per year, this rule does not apply.

The dip tank, constructed in 1970, is also not subject to this rule. For facilities constructed prior to November 1, 1980, this rule applies if the facility is located in one of the specifically listed counties in 326 IAC 8-2-1(a)(1) at sources with potential VOC emissions of 100 tons per year or greater. Since this source is not located in one of the counties listed in 326 IAC 8-2-1(a)(1), the dip tank is not subject to this rule.

326 IAC 11-1 (Existing Foundries)

This source is not subject to the requirements of this rule. This rule sets particulate matter emission limits for foundry cupolas at foundries in operation on or before December 6, 1968. Although this source was in operation before December 6, 1968, it does not contain a cupola.

Testing Requirements

Testing for PM and PM-10 will be required on one (1) of the four (4) identical electric induction furnaces since foundries are required to test electric induction furnaces. Also, alternate PM and PM-10 emission factors were used to calculate emissions which need to be verified.

Testing for PM will be required on the A-Line pouring operation to demonstrate compliance with the PM emission limit pursuant to 326 IAC 6-3-2 and to verify the alternate PM emission factor used to calculate emissions.

Testing for PM and PM-10 will be required on the following baghouses, unless otherwise noted, because potential emissions are greater than 40 tons per year and the baghouses are required to comply with the applicable PM and/or PM-10 limits for their associated emission units:

(a) the baghouse controlling the charge handling operation, identified as 39-DC-4 (PM emission factor must also be verified);
(b) the baghouse controlling the A-Line Shakeout operation, identified as 36-1-DC-6 (PM testing only);
(c) the baghouse controlling the A-Line Holding Silo and Muller, identified as 36-1-DC-5;
(d) the baghouse controlling the B-Line Shakeout operation, and the B-Line Holding Silo and Muller, identified as 36-1-DC-3;
(e) the baghouse controlling the Knockout Station, identified as 8-DC-2;
(f) the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, the two (2) core and mold sand silos, and the core and mold sand hopper, identified as Core Sand Baghouse; and
(g) the two (2) baghouses controlling the Wheelabrator shot blast machine, identified as 36-DC-8 and 36-DC-8A.

Testing for VOC will be required on the afterburner, identified as Afterburner J, controlling VOC emissions from the Isocure core machine since the source is claiming an overall VOC control efficiency of greater than 85%.

Testing for PM and PM-10 is required for the baghouse controlling the High Speed Continuous Sand Mixer hopper, identified as Baghouse N, to demonstrate compliance with the applicable PM and PM-10 emission limits. However, since testing on this baghouse was completed on October 24, 2001 as required in the Significant Source Modification (SSM 091-12963-00020), issued to this source on April 6, 2001, testing will not be required to be repeated for this baghouse for five years after the initial test.

Testing for PM and PM-10 is required for the baghouse controlling the indoor scrap handling operation and the raw sand storage silo for the High Speed Continuous Sand Mixer, that exhausts through stack ID No. 1 to demonstrate compliance with the applicable PM and PM-10 emission limits. A Significant Source Modification (SSM 091-14688-00020) was issued to this source on November 26, 2001, which required PM and PM-10 testing on this baghouse to be performed within 180 days after the permit was issued. Since this permit was issued recently, this testing has not yet been completed. Therefore, this Part 70 permit will require testing on this baghouse to be performed within 60 days after achieving maximum capacity, but no later than 180 days after startup.

Testing is not required on any of the other emission units at this source because they do not meet any of the criteria which would require a stack test.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal

rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The four (4) electric induction furnaces have applicable compliance monitoring conditions as specified below:

    (a) Visible emissions notations of the stack exhaust for the four (4) electric induction furnaces shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

    These monitoring conditions are necessary to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations) and 326 IAC 2-7 (Part 70).

2. The charge handling system has applicable compliance monitoring conditions as specified below:

    (a) Visible emissions notations of the stack exhaust for the dust collector controlling the charge handling operation shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal

visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the dust collector used in conjunction with the charge handling system, at least once per shift when the charge handling system is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the dust collector is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the charge handling operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the charge handling operation must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

3. The A-Line Molding operation has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the A-Line pouring and cooling operations and each of the stack exhausts for the baghouses controlling the A-Line Holding Silo and Muller, and the A-Line Shakeout operation shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the A-Line Shakeout operation and the A-Line Holding Silo and Muller, at least once per shift when the A-Line Shakeout operation and the A-Line Holding Silo and Muller are in operation when venting to the atmosphere. When for any one reading, the pressure drop across either of the baghouses is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the A-Line Holding Silo and Muller, and the A-Line Shakeout operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations) and because the baghouses for the A-Line Holding Silo and Muller, and the A-Line Shakeout operation must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

4. The B-Line Molding operation has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the B-Line pouring operation and the stack exhaust for the baghouse controlling the B-Line Holding Silo and Muller, and the B-Line Shakeout operation shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the B-Line Shakeout operation and the B-Line Holding Silo and Muller, at least once per shift when the B-Line Shakeout operation and the B-Line Holding Silo and Muller are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the B-Line Holding Silo and Muller, and the B-Line Shakeout operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations) and because the baghouse for the B-Line Holding Silo and Muller, and the B-Line Shakeout operation must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

5. The Floor Molding operation has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the Floor pouring and cooling operations and each of the stack exhausts for the baghouses controlling the High Speed Continuous Sand Mixer hopper and the Knockout Station shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the High Speed Continuous Sand Mixer hopper and the Knockout Station, at least once per shift when the High Speed Continuous Sand Mixer hopper and the Knockout Station are in operation when venting to the atmosphere. When for any one reading, the pressure drop across either of the baghouses is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the High Speed Continuous Sand Mixer hopper and the Knockout Station when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary to ensure compliance with 326 IAC 5-1-2 (Opacity Limitations) and because the baghouses for the High Speed Continuous Sand Mixer hopper and the Knockout Station must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

6. The shot blasting operations have applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of each of the stack exhausts for the baghouses controlling the Wheelabrator shot blast machine and the Chill Iron shot blast machine shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across each of the baghouses used in conjunction with the Wheelabrator shot blast machine and the Chill Iron shot blast machine, at least once per shift when the Wheelabrator shot blast machine and the Chill Iron shot blast machine are in operation when venting to the atmosphere. When for any one reading, the pressure drop across either of the baghouses is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the Wheelabrator shot blast machine and the Chill Iron shot blast machine when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses for the Wheelabrator shot blast machine and the Chill Iron shot blast machine must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

7. The paint spray booth has applicable compliance monitoring conditions as specified below:

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack (5-E-1) while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

8. The indoor scrap handling system and the raw sand storage silo have applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the stack exhaust for the baghouse controlling the indoor scrap handling operation and the raw sand storage silo shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the baghouse controlling the indoor scrap handling system and the raw sand storage silo at least once per shift when the indoor scrap handling system and the raw sand storage

silo are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the indoor scrap handling system and the raw sand storage silo when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the indoor scrap handling system and the raw sand storage silo must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

9. The core sand handling system has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the stack exhaust for the baghouse controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, the two (2) core and mold sand silos, and the core and mold sand hopper, identified as Core Sand Baghouse, shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the baghouse identified as Core Sand Baghouse at least once per shift when the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, the two (2) core and mold sand silos, and the core and mold sand hopper are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, the two (2) core and mold sand silos, and the core and mold sand hopper, when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring

Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the Isocure Line Sand Mixer, the Isocure line sand hopper, the Pepset line sand hopper, the Warm Box Line Mixers and hopper, the two (2) core and mold sand silos, and the core and mold sand hopper, identified as Core Sand Baghouse, must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

10. The machining operation has applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the stack exhaust for each of the baghouses (I and K) controlling the machining operation shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across each of the baghouses controlling the machining operation, identified as I and K, at least once per shift when the controlled machines are in operation when venting to the atmosphere. When for any one reading, the pressure drop across either of the baghouses is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) An inspection shall be performed each calender quarter of all bags controlling the machining operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

(d) In the event that bag failure has been observed:

(1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the two (2) baghouses for the machining operation, identified as I and K, must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Conclusion

The operation of this gray iron foundry shall be subject to the conditions of the attached proposed Part 70 Permit No. T091-6295-00020.

Appendix A: Emission Calculations (Page 1 of 4)

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Total Potential To Emit (tons/year)

	Emissions Generating Activity									
Pollutant	Electric Induction Furnaces	Charge Handling	A-Line Pouring	A-Line Cooling	A-Line Shakeout	A-Line Muller and Sand Handling	B-Line Pouring	B-Line Cooling	B-Line Shakeout	**SUBTOTAL**
PM	13.20	52.60	105.10	147.20	336.40	3153.60	165.60	55.20	126.10	4155.0
PM10	22.30	31.50	216.50	147.20	235.50	473.00	81.20	55.20	88.30	1350.7
SO2	0.00	0.00	2.10	0.00	0.00	0.00	0.79	0.00	0.00	2.9
NOx	0.00	0.00	1.10	0.00	0.00	0.00	0.39	0.00	0.00	1.5
VOC	0.00	0.00	14.70	0.00	126.10	0.00	5.50	0.00	47.30	193.6
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
total HAPs	0.80	1.99	16.72	16.72	12.74	0.00	6.27	6.27	4.78	66.3
worst case single HAP	(Manganese) 0.69	(Manganese) 1.63	(Manganese) 13.69	(Manganese) 13.69	(Manganese) 10.43	0.00	(Manganese) 5.13	(Manganese) 5.13	(Manganese) 3.91	(Manganese) 56.05

Total emissions based on rated capacities at 8,760 hours/year.
**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Total Limited Potential To Emit (tons/year)

	Emissions Generating Activity									
Pollutant	Electric Induction Furnaces	Charge Handling	A-Line Pouring	A-Line Cooling	A-Line Shakeout	A-Line Muller and Sand Handling	B-Line Pouring	B-Line Cooling	B-Line Shakeout	**SUBTOTAL**
PM	5.36	8.67	35.60	49.80	12.40	24.90	66.20	22.10	10.50	235.5
PM10	9.07	5.20	73.30	49.80	8.70	3.70	32.40	22.10	7.30	211.6
SO2	0.00	0.00	0.70	0.00	0.00	0.00	0.32	0.00	0.00	1.0
NOx	0.00	0.00	0.40	0.00	0.00	0.00	0.16	0.00	0.00	0.6
VOC	0.00	0.00	5.00	0.00	42.70	0.00	2.20	0.00	18.90	68.8
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
total HAPs	0.32	0.33	5.66	5.66	0.47	0.00	2.51	2.51	0.40	17.9
worst case single HAP	(Manganese) 0.28	(Manganese) 0.27	(Manganese) 4.64	(Manganese) 4.64	(Manganese) 0.38	0.00	(Manganese) 2.05	(Manganese) 2.05	(Manganese) 0.32	(Manganese) 14.63

Total emissions based on rated capacities at 8,760 hours/year.
**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Appendix A: Emission Calculations (Page 2 of 4)

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Total Potential To Emit (tons/year)

	Emissions Generating Activity									
Pollutant	B-Line Muller and Sand Handling	Floor Pouring	Floor Cooling	Floor Shakeout	Floor Knockout	High Speed Mixer and Sand Handling	Isocure Sand Mixer and Sand Handling	Pepset Mixers and Sand Handling	Warm Box Sand Handling	**SUBTOTAL**
PM	1576.80	110.40	36.80	59.40	210.20	662.30	91.50	94.60	78.80	2920.8
PM10	236.50	54.10	36.80	58.90	147.20	99.30	13.70	14.20	11.80	672.5
SO2	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.5
NOx	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.3
VOC	0.00	3.70	0.00	31.50	78.80	331.13	0.00	0.00	0.00	445.1
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
total HAPs	0.00	4.18	4.18	3.19	7.96	0.00	0.00	0.00	0.00	19.5
worst case single HAP	0.00	(Manganese) 3.42	(Manganese) 3.42	(Manganese) 2.61	(Manganese) 6.52	0.00	0.00	0.00	0.00	(Manganese) 15.97

Total emissions based on rated capacities at 8,760 hours/year.

**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Total Limited Potential To Emit (tons/year)

	Emissions Generating Activity									
Pollutant	B-Line Muller and Sand Handling	Floor Pouring	Floor Cooling	Floor Shakeout	Floor Knockout	High Speed Mixer and Sand Handling	Isocure Sand Mixer and Sand Handling	Pepset Mixers and Sand Handling	Warm Box Sand Handling	**SUBTOTAL**
PM	7.00	110.40	36.80	59.40	43.70	0.08	23.55	7.65	20.30	308.9
PM10	1.00	54.10	36.80	58.90	30.60	0.01	3.53	1.15	3.05	189.1
SO2	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.5
NOx	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.3
VOC	0.00	3.70	0.00	31.50	78.80	24.90	0.00	0.00	0.00	138.9
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
total HAPs	0.00	4.18	4.18	3.19	1.66	0.00	0.00	0.00	0.00	13.2
worst case single HAP	0.00	(Manganese) 3.42	(Manganese) 3.42	(Manganese) 2.61	(Manganese) 1.36	0.00	0.00	0.00	0.00	(Manganese) 10.81

Total emissions based on rated capacities at 8,760 hours/year.

**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Appendix A: Emission Calculations (Page 3 of 4)

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Total Potential To Emit (tons/year)

	Emissions Generating Activity								
Pollutant	Isocure Core Machine	Isocure Core Machine Afterburner	Pepset Core/Mold Machine	Warm Box Core Machines	Controlled Machining	Uncontrolled Machining	Wheelabrator Shot Blast	Chill Iron Shot Blast	**SUBTOTAL**
PM	0.00	0.01	0.00	0.00	0.88	0.88	2308.30	4.50	2314.6
PM10	0.00	0.05	0.00	0.00	0.39	0.39	230.80	0.40	232.0
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
NOx	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.6
VOC	104.22	0.03	92.37	61.29	0.00	0.00	0.00	0.00	257.9
CO	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.5
total HAPs	71.13	0.00	4.86	61.29	0.00	0.00	87.44	0.17	224.9
worst case single HAP	(TEA) 71.13	0.00	(Perchloroethylene) 4.86	(Methanol) 61.29	0.00	0.00	(Manganese) 71.56	(Manganese) 0.14	(Manganese) 71.7

Total emissions based on rated capacities at 8,760 hours/year.

**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Total Limited Potential To Emit (tons/year)

	Emissions Generating Activity								
Pollutant	Isocure Core Machine	Isocure Core Machine Afterburner	Pepset Core/Mold Machine	Warm Box Core Machines	Controlled Machining	Uncontrolled Machining	Wheelabrator Shot Blast	Chill Iron Shot Blast	**SUBTOTAL**
PM	0.00	0.01	0.00	0.00	0.04	0.36	12.70	0.93	14.0
PM10	0.00	0.05	0.00	0.00	0.02	0.16	1.27	0.09	1.6
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
NOx	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.6
VOC	34.00	0.03	39.90	61.29	0.00	0.00	0.00	0.00	135.2
CO	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.5
total HAPs	7.75	0.00	1.52	61.29	0.00	0.00	0.48	0.04	71.1
worst case single HAP	(TEA) 7.75	0.00	(Perchloroethylene) 1.52	(Methanol) 61.29	0.00	0.00	(Manganese) 0.39	(Manganese) 0.03	(Methanol) 61.29

Total emissions based on rated capacities at 8,760 hours/year.

**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Appendix A: Emission Calculations (Page 4 of 4)

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Total Potential To Emit (tons/year)

	Emissions Generating Activity									
Pollutant	New Scrap Handling Crusher	New Scrap Handling Rotary Reclaimer	Raw Sand Storage Silo	Spent Sand Storage Silo	Sand Conveyor	Preheater	Boiler Testing	Surface Coating	Unpaved Roadways	**TOTAL**
PM	32.90	210.20	157.70	157.70	157.70	0.11	0.50	3.06	0.44	10,110.7
PM10	3.30	147.20	23.70	23.70	23.70	0.43	0.80	3.06	0.15	2,481.3
SO2	0.00	0.00	0.00	0.00	0.00	0.03	6.50	0.00	0.00	10.0
NOx	0.00	0.00	0.00	0.00	0.00	5.68	4.80	0.00	0.00	12.8
VOC	0.00	0.00	0.00	0.00	0.00	0.31	0.20	10.05	0.00	907.2
CO	0.00	0.00	0.00	0.00	0.00	4.77	2.70	0.00	0.00	8.0
total HAPs	0.00	7.96	0.00	0.00	0.00	0.00	0.00	4.91	0.00	323.6
worst case single HAP	0.00	(Manganese) 6.52	0.00	0.00	0.00	0.00	0.00	(Glycol Ether) 4.91	0.00	(Manganese) 150.24

Total emissions based on rated capacities at 8,760 hours/year.

**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Total Limited Potential To Emit (tons/year)

	Emissions Generating Activity									
Pollutant	New Scrap Handling Crusher	New Scrap Handling Rotary Reclaimer	Raw Sand Storage Silo	Spent Sand Storage Silo	Sand Conveyor	Preheater	Boiler Testing	Surface Coating	Unpaved Roadways	**TOTAL**
PM	3.30	2.30	0.84	1.73	15.90	0.11	0.50	0.31	0.44	583.9
PM10	0.33	1.62	0.13	0.26	2.40	0.43	0.80	0.31	0.15	408.7
SO2	0.00	0.00	0.00	0.00	0.00	0.03	6.50	0.00	0.00	8.1
NOx	0.00	0.00	0.00	0.00	0.00	5.68	4.80	0.00	0.00	11.9
VOC	0.00	0.00	0.00	0.00	0.00	0.31	0.20	10.05	0.00	353.5
CO	0.00	0.00	0.00	0.00	0.00	4.77	2.70	0.00	0.00	8.0
total HAPs	0.00	0.09	0.00	0.00	0.00	0.00	0.00	4.91	0.00	107.1
worst case single HAP	0.00	(Manganese) 0.07	0.00	0.00	0.00	0.00	0.00	(Glycol Ether) 4.91	0.00	(Methanol) 61.50

Total emissions based on rated capacities at 8,760 hours/year.

**For the purposes of determining Title V applicability, PM10 (not PM) is the regulated pollutant in consideration

Appendix A: Grey Iron Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-03
Electric Induction Furnaces

TYPE OF MATERIAL: Iron

Maximum Throughput: LBS/HR 40000, TON/HR 20
Limited Throughput: LBS/HR 16256, TON/HR 8.13

Control Device: N/A
Control Efficiency: N/A

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
For Furnaces 1 - 4 P = 20
E (lb/hr) for all 4 furnaces = 30.51

	PM lbs/ton metal charged 0.1506	PM10 lbs/ton metal charged 0.2548	SOx lbs/ton metal charged 0.00	NOx lbs/ton metal charged 0.00	VOC lbs/ton metal charged 0.00	CO lbs/ton metal charged 0.00	Lead lbs/ton metal charged 0.0004
Potential Uncontrolled Emissions lbs/hr	3.0	5.1	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	72.3	122.3	0.0	0.0	0.0	0.0	0.19
Potential Uncontrolled Emissions tons/year	**13.2**	**22.3**	**0.0**	**0.0**	**0.0**	**0.0**	**3.5E-02**
Potential Controlled Emissions lbs/hr	1.22	2.07	0.0	0.0	0.0	0.0	3.3E-03
Potential Controlled Emissions lbs/day	29.4	49.7	0.0	0.0	0.0	0.0	0.08
Potential Controlled Emissions tons/year	**5.36**	**9.07**	**0.0**	**0.0**	**0.0**	**0.0**	**1.4E-02**

Note: Emission factors from in-house stack test performed on May 8, 2001.

SCC# 3-04-003-15
Charge Handling

TYPE OF MATERIAL: Metal

Maximum Throughput: LBS/HR 40000, TON/HR 20
Limited Throughput: LBS/HR 16256, TON/HR 8.13

Control Device: 39-DC-4
Control Efficiency: 59.40%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 20
E (lb/hr) = 30.51

	PM lbs/ton metal charged 0.6	PM10 lbs/ton metal charged 0.36	SOx lbs/ton metal charged 0.00	NOx lbs/ton metal charged 0.00	VOC lbs/ton metal charged 0.00	CO lbs/ton metal charged 0.00	Lead lbs/ton metal charged 0.00
Potential Uncontrolled Emissions lbs/hr	12.0	7.2	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	288.0	172.8	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**52.6**	**31.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	1.98	1.19	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	47.52	28.51	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**8.67**	**5.20**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-20
A-Line Pouring

	Maximum Throughput LBS/HR	Maximum Throughput TON/HR
TYPE OF MATERIAL	48000	24
	Limited Throughput LBS/HR	Limited Throughput TON/HR
Iron	16256	8.13

Control Device: N/A
Control Efficiency: N/A

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For A-Line Pouring P = 234
E (lb/hr) = 60.23

	PM lbs/ton metal charged 1.0	**PM10** lbs/ton metal charged 2.06	**SOx** lbs/ton metal charged 0.02	**NOx** lbs/ton metal charged 0.01	**VOC** lbs/ton metal charged 0.14	**CO** lbs/ton metal charged 0.00	**Lead** lbs/ton metal charged 0.00
Potential Uncontrolled Emissions lbs/hr	24.0	49.4	0.5	0.2	3.4	0.0	0.0
Potential Uncontrolled Emissions lbs/day	576.0	1186.6	11.5	5.8	80.6	0.0	0.0
Potential Uncontrolled Emissions tons/year	**105.1**	**216.5**	**2.1**	**1.1**	**14.7**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	8.1	16.7	0.2	0.1	1.1	0.0	0.0
Potential Controlled Emissions lbs/day	195.1	401.8	3.9	2.0	27.3	0.0	0.0
Potential Controlled Emissions tons/year	**35.6**	**73.3**	**0.7**	**0.4**	**5.0**	**0.0**	**0.0**

Note: PM emission factor from in-house stack test.
All other emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-25
A-Line Cooling

	Maximum Throughput LBS/HR	Maximum Throughput TON/HR
TYPE OF MATERIAL	48000	24
	Limited Throughput LBS/HR	Limited Throughput TON/HR
Iron	16256	8.13

Control Device: N/A
Control Efficiency: N/A

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For A-Line Cooling P = 234
E (lb/hr) = 60.23

	PM lbs/ton metal charged 1.4	**PM10** lbs/ton metal charged 1.4	**SOx** lbs/ton metal charged 0.0	**NOx** lbs/ton metal charged 0.0	**VOC** lbs/ton metal charged 0.0	**CO** lbs/ton metal charged 0.0	**Lead** lbs/ton metal charged 0.0
Potential Uncontrolled Emissions lbs/hr	33.6	33.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	806.4	806.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**147.2**	**147.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	11.4	11.4	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	273.1	273.1	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**49.8**	**49.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Appendix A: Grey Iron Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-31
A-Line Shakeout

TYPE OF MATERIAL

Iron

Maximum Throughput

LBS/HR	TON/HR
48000	24

Limited Throughput

LBS/HR	TON/HR
16256	8.13

Control Device: 36-1-DC-8
Control Efficiency: 89.10%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For A-Line Shakeout P = 234
E (lb/hr) = 60.23

	PM **lbs/ton metal charged** 3.2	**PM10** **lbs/ton metal charged** 2.24	**SOx** **lbs/ton metal charged** 0.0	**NOx** **lbs/ton metal charged** 0.0	**VOC** **lbs/ton metal charged** 1.2	**CO** **lbs/ton metal charged** 0.0	**Lead** **lbs/ton metal charged** 0.0
Potential Uncontrolled Emissions lbs/hr	76.8	53.8	0.0	0.0	28.8	0.0	0.0
Potential Uncontrolled Emissions lbs/day	1843.2	1290.2	0.0	0.0	691.2	0.0	0.0
Potential Uncontrolled Emissions tons/year	**336.4**	**235.5**	**0.0**	**0.0**	**126.1**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	2.8	2.0	0.0	0.0	9.8	0.0	0.0
Potential Controlled Emissions lbs/day	68.0	47.6	0.0	0.0	234.1	0.0	0.0
Potential Controlled Emissions tons/year	**12.4**	**8.7**	**0.0**	**0.0**	**42.7**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-50
A-Line Muller & Sand Handling

TYPE OF MATERIAL

Sand

Maximum Throughput

LBS/HR	TON/HR
400000	200

Limited Throughput

TONS/HR
53

Control Device: 36-1-DC-8
Control Efficiency: 97.02%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For A-Line Muller P = 200
E (lb/hr) = 58.51

	PM **lbs/ton sand handled** 3.6	**PM10** **lbs/ton sand handled** 0.54	**SOx** **lbs/ton sand handled** 0.0	**NOx** **lbs/ton sand handled** 0.0	**VOC** **lbs/ton sand handled** 0.0	**CO** **lbs/ton sand handled** 0.0	**Lead** **lbs/ton sand handled** 0.0
Potential Uncontrolled Emissions lbs/hr	720.0	108.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	17280.0	2592.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**3153.6**	**473.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	5.68	0.85	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	136.4	20.5	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**24.9**	**3.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Appendix A: Grey Iron Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-20
B-Line Pouring

TYPE OF MATERIAL	Maximum Throughput LBS/HR	Maximum Throughput TON/HR	Limited Throughput TONS/HR
Iron	18000	9	3.60

Control Device: N/A
Control Efficiency: N/A

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For B-Line Pouring P = 113
E (lb/hr) = 52.51

	PM lbs/ton metal charged 4.2	**PM10** lbs/ton metal charged 2.06	**SOx** lbs/ton metal charged 0.02	**NOx** lbs/ton metal charged 0.01	**VOC** lbs/ton metal charged 0.14	**CO** lbs/ton metal charged 0.00	**Lead** lbs/ton metal charged 0.00
Potential Uncontrolled Emissions lbs/hr	37.8	18.5	0.2	0.1	1.3	0.0	0.0
Potential Uncontrolled Emissions lbs/day	907.2	445.0	4.3	2.2	30.2	0.0	0.0
Potential Uncontrolled Emissions tons/year	**165.6**	**81.2**	**0.79**	**0.39**	**5.5**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	15.1	7.4	7.2E-02	3.6E-02	0.5	0.0	0.0
Potential Controlled Emissions lbs/day	362.5	177.8	1.7	0.86	12.1	0.0	0.0
Potential Controlled Emissions tons/year	**66.2**	**32.4**	**0.32**	**0.16**	**2.2**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-25
B-Line Cooling

TYPE OF MATERIAL	Throughput LBS/HR	Throughput TON/HR	Limited Throughput TONS/HR
Iron	18000	9	3.60

Control Device: N/A
Control Efficiency: N/A

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For B-Line Cooling P = 113
E (lb/hr) = 52.51

	PM lbs/ton metal charged 1.4	**PM10** lbs/ton metal charged 1.4	**SOx** lbs/ton metal charged 0.0	**NOx** lbs/ton metal charged 0.0	**VOC** lbs/ton metal charged 0.0	**CO** lbs/ton metal charged 0.0	**Lead** lbs/ton metal charged 0.0
Potential Uncontrolled Emissions lbs/hr	12.6	12.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	302.4	302.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**55.2**	**55.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	5.0	5.0	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	120.8	120.8	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**22.1**	**22.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-31 — Throughput
B-Line Shakeout — LBS/HR: 18000 — TON/HR: 9
TYPE OF MATERIAL: Iron — Limited Throughput TONS/HR: 3.60

Control Device: 36-1-DC-7
Control Efficiency: 79.20%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For B-Line Shakeout P = 113
E (lb/hr) = 52.51

	PM lbs/ton metal charged 3.2	PM10 lbs/ton metal charged 2.24	SOx lbs/ton metal charged 0.0	NOx lbs/ton metal charged 0.0	VOC lbs/ton metal charged 1.2	CO lbs/ton metal charged 0.0	Lead lbs/ton metal charged 0.0
Potential Uncontrolled Emissions lbs/hr	28.8	20.2	0.0	0.0	10.8	0.0	0.0
Potential Uncontrolled Emissions lbs/day	691.2	483.8	0.0	0.0	259.2	0.0	0.0
Potential Uncontrolled Emissions tons/year	**126.1**	**88.3**	**0.0**	**0.0**	**47.3**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	2.4	1.7	0.0	0.0	4.3	0.0	0.0
Potential Controlled Emissions lbs/day	57.4	40.2	0.0	0.0	103.6	0.0	0.0
Potential Controlled Emissions tons/year	**10.5**	**7.3**	**0.0**	**0.0**	**18.9**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-50 — Maximum Throughput
B-Line Muller & Sand Handling — LBS/HR: 200000 — TON/HR: 100
TYPE OF MATERIAL: Sand — Limited Throughput TONS/HR: 14.8

Control Device: 36-1-DC-7
Control Efficiency: 97.02%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For B-Line Muller P = 100
E (lb/hr) = 51.28

	PM lbs/ton sand handled 3.6	PM10 lbs/ton sand handled 0.54	SOx lbs/ton sand handled 0.0	NOx lbs/ton sand handled 0.0	VOC lbs/ton sand handled 0.0	CO lbs/ton sand handled 0.0	Lead lbs/ton sand handled 0.0
Potential Uncontrolled Emissions lbs/hr	360.0	54.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	8640.0	1296.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**1576.8**	**236.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	1.6	0.2	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	38.2	5.7	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**7.0**	**1.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Appendix A: Grey Iron Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-20
Floor Pouring

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For Floor Pouring P = 35
E (lb/hr) = 41.32

TYPE OF MATERIAL	Maximum Throughput LBS/HR	Maximum Throughput TON/HR	Control Device:	N/A	Control Efficiency:	N/A
Iron	12000	6				

	PM lbs/ton metal charged 4.2	PM10 lbs/ton metal charged 2.06	SOx lbs/ton metal charged 0.02	NOx lbs/ton metal charged 0.01	VOC lbs/ton metal charged 0.14	CO lbs/ton metal charged 0.00	Lead lbs/ton metal charged 0.00
Potential Uncontrolled Emissions lbs/hr	25.2	12.4	0.1	0.1	0.8	0.0	0.0
Potential Uncontrolled Emissions lbs/day	604.8	296.6	2.9	1.4	20.2	0.0	0.0
Potential Uncontrolled Emissions tons/year	**110.4**	**54.1**	**0.53**	**0.26**	**3.7**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	25.2	12.4	0.1	0.1	0.8	0.0	0.0
Potential Controlled Emissions lbs/day	604.8	296.6	2.9	1.4	20.2	0.0	0.0
Potential Controlled Emissions tons/year	**110.4**	**54.1**	**0.53**	**0.26**	**3.7**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-25
Floor Cooling

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For Floor Cooling P = 35
E (lb/hr) = 41.32

TYPE OF MATERIAL	Maximum Throughput LBS/HR	Maximum Throughput TON/HR	Control Device:	N/A	Control Efficiency:	N/A
Iron	12000	6				

	PM lbs/ton metal charged 1.4	PM10 lbs/ton metal charged 1.4	SOx lbs/ton metal charged 0.0	NOx lbs/ton metal charged 0.0	VOC lbs/ton metal charged 0.0	CO lbs/ton metal charged 0.0	Lead lbs/ton metal charged 0.0
Potential Uncontrolled Emissions lbs/hr	8.4	8.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	201.6	201.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**36.8**	**36.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	8.4	8.4	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	201.6	201.6	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**36.8**	**36.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-31
Floor Shakeout

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For Floor Shakeout P = 35
E (lb/hr) = 41.32

TYPE OF MATERIAL		Maximum Throughput LBS/HR	TON/HR	Control Device: / Control Efficiency:	N/A / N/A
Iron		12000	6		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged	Lead lbs/ton metal charged
	2.26	2.24	0.0	0.0	1.2	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	13.56	13.4	0.0	0.0	7.2	0.0	0.0
Potential Uncontrolled Emissions lbs/day	325.4	322.6	0.0	0.0	172.8	0.0	0.0
Potential Uncontrolled Emissions tons/year	**59.4**	**58.9**	**0.0**	**0.0**	**31.5**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	13.56	13.44	0.0	0.0	7.20	0.0	0.0
Potential Controlled Emissions lbs/day	325.4	322.6	0.0	0.0	172.8	0.0	0.0
Potential Controlled Emissions tons/year	**59.4**	**58.9**	**0.0**	**0.0**	**31.5**	**0.0**	**0.0**

Note: PM10 and VOC Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.
PM emission factor provided by source and will be verified by stack test.

SCC# 3-04-003-31
Floor Knockout

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 15
E (lb/hr) = 25.16

TYPE OF MATERIAL		Maximum Throughput LBS/HR	TON/HR	Control Device: / Control Efficiency:	8-DC-2 / 79.20%
Iron		30000	15		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged	Lead lbs/ton metal charged
	3.2	2.24	0.0	0.0	1.2	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	48.0	33.6	0.0	0.0	18.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	1152.0	806.4	0.0	0.0	432.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**210.2**	**147.2**	**0.0**	**0.0**	**78.8**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	9.98	6.99	0.0	0.0	18.00	0.0	0.0
Potential Controlled Emissions lbs/day	239.6	167.7	0.0	0.0	432.0	0.0	0.0
Potential Controlled Emissions tons/year	**43.7**	**30.6**	**0.0**	**0.0**	**78.8**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-50

High Speed Continuous Sand Mixer & Floor Sand Handling

	Maximum Throughput LBS/HR	Maximum Throughput TON/HR
	84000	42
	Limited Throughput	
TYPE OF MATERIAL		TONS/HR
Sand		4.86

Control Device: 30-DC-6
Control Efficiency: 99.90%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 55 * (P^0.11) - 40 for P>30 tons/hr
For Sand Mixer 42
E (lb/hr) = 42.97

	PM lbs/ton sand handled 3.6	**PM10** lbs/ton sand handled 0.54	**SOx** lbs/ton sand handled 0.0	**NOx** lbs/ton sand handled 0.0	**VOC** lbs/ton sand handled 0.00	**CO** lbs/ton sand handled 0.0	**Lead** lbs/ton sand handled 0.0
Potential Uncontrolled Emissions lbs/hr	151.2	22.7	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	3628.8	544.3	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**662.3**	**99.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	1.7E-02	2.6E-03	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	0.4	0.1	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**0.08**	**0.01**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: PM and PM10 emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Isocure Sand Mixer & Sand Handling

TYPE OF MATERIAL	Throughput LBS/HR	Throughput TON/HR
Sand	11600.0	5.8

Control Device: 36-1-DC-7
Control Efficiency: 74.25%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 5.8
E (lb/hr) = 13.31

	PM lbs/ton sand handled 3.6	**PM10** lbs/ton sand handled 0.54	**SOx** lbs/ton sand handled 0.0	**NOx** lbs/ton sand handled 0.0	**VOC** lbs/ton sand handled 0.00	**CO** lbs/ton sand handled 0.0	**Lead** lbs/ton sand handled 0.0
Potential Uncontrolled Emissions lbs/hr	20.9	3.1	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	501.1	75.2	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**91.5**	**13.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	5.38	0.81	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	129.04	19.36	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**23.55**	**3.53**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: PM and PM10 emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-50
Pepset Large & Small Core Mixer & Sand Handling

TYPE OF MATERIAL	Maximum Throughput LBS/HR	Maximum Throughput TON/HR
Sand	12000	6
	Limited Throughput	Limited Throughput TONS/HR
		1.88

Control Device: 36-1-DC-7
Control Efficiency: 74.25%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 6
E (lb/hr) = 13.62

	PM **lbs/ton sand handled** 3.6	**PM10** **lbs/ton sand handled** 0.54	**SOx** **lbs/ton sand handled** 0.0	**NOx** **lbs/ton sand handled** 0.0	**VOC** **lbs/ton sand handled** 0.00	**CO** **lbs/ton sand handled** 0.0	**Lead** **lbs/ton sand handled** 0.0
Potential Uncontrolled Emissions lbs/hr	21.6	3.2	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	518.4	77.8	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**94.6**	**14.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	1.75	0.26	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	41.91	6.29	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**7.65**	**1.15**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-50
Warm Box Sand Handling

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 5
E (lb/hr) = 12.05

TYPE OF MATERIAL	Throughput LBS/HR	Throughput TON/HR	Control Device:	Control Efficiency:
Sand	10000.0	5.0	36-1-DC-7	74.25%

	PM lbs/ton sand handled	PM10 lbs/ton sand handled	SOx lbs/ton sand handled	NOx lbs/ton sand handled	VOC lbs/ton sand handled	CO lbs/ton sand handled	Lead lbs/ton sand handled
	3.6	0.54	0.0	0.0	0.00	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	18.0	2.7	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	432.0	64.8	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**78.8**	**11.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	4.64	0.70	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	111.24	16.69	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**20.30**	**3.05**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-60
Controlled machining

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 20
E (lb/hr) = 30.51

TYPE OF MATERIAL	Maximum Throughput LBS/HR	Maximum Throughput TON/HR	Control Device:	Control Efficiency:
	40000	20	8-DC-2 and 8-DC-1	89.10%
	Limited Throughput			
Iron		TONS/HR		
		8.13		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged	Lead lbs/ton metal charged
	0.01	0.0045	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	0.20	0.09	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	4.8	2.2	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**0.88**	**0.39**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	8.9E-03	4.0E-03	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	2.1E-01	9.6E-02	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**3.9E-02**	**1.7E-02**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Appendix A: Grey Iron Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-60
Uncontrolled machining

	Maximum Throughput LBS/HR	Maximum Throughput TON/HR
TYPE OF MATERIAL	40000	20
	Limited Throughput	Limited Throughput TONS/HR
Iron		8.13

Control Device: N/A
Control Efficiency: N/A

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 20
E (lb/hr) = 30.51

	PM lbs/ton metal charged 0.01	PM10 lbs/ton metal charged 0.0045	SOx lbs/ton metal charged 0.0	NOx lbs/ton metal charged 0.0	VOC lbs/ton metal charged 0.0	CO lbs/ton metal charged 0.0	Lead lbs/ton metal charged 0.0
Potential Uncontrolled Emissions lbs/hr	0.20	0.09	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	4.8	2.2	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**0.88**	**0.39**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	0.08	0.04	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	1.95	0.88	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**0.36**	**0.16**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-40
Shotblast Operations - Wheelabrator Shot Blast Machine

	Maximum Throughput LBS/HR	Maximum Throughput TON/HR
TYPE OF MATERIAL	62000	31
	Limited Throughput	Limited Throughput TONS/HR
Iron		8.13

Control Device: 36-DC-8
Control Efficiency: 97.90%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 31
E (lb/hr) = 40.93

	PM lbs/ton metal charged 17.0	PM10 lbs/ton metal charged 1.7	SOx lbs/ton metal charged 0.0	NOx lbs/ton metal charged 0.0	VOC lbs/ton metal charged 0.0	CO lbs/ton metal charged 0.0	Lead lbs/ton metal charged 0.0
Potential Uncontrolled Emissions lbs/hr	527.0	52.7	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	12648.0	1264.8	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**2308.3**	**230.8**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	2.90	0.29	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	69.6	6.96	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**12.7**	**1.27**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-40
Chill Iron Shotblasting Operation

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 0.06
E (lb/hr) = 0.62

TYPE OF MATERIAL	Throughput LBS/HR	Throughput TON/HR	Control Device:	8-DC-2
			Control Efficiency:	79.20%
Iron	120.00	0.06		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged	Lead lbs/ton metal charged
	17.0	1.7	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	1.0	0.10	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	24.5	2.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**4.5**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	0.21	2.1E-02	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	5.09	0.51	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**0.93**	**9.3E-02**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-03-024-01
New Scrap Handling - Crusher

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 15
E (lb/hr) = 25.16

TYPE OF MATERIAL	Throughput LBS/HR	Throughput TON/HR	Control Device:	39-DC-5
			Control Efficiency:	89.91%
Metal	30000	15		

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged	Lead lbs/ton metal charged
	0.5	0.05	0.00	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/hr	7.5	0.8	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	180.0	18.0	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**32.9**	**3.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	0.76	0.08	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	18.2	1.8	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**3.3**	**0.33**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-31
Scrap Handling - Rotary Reclaimer

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P (including sand & metal) = 25
E (lb/hr) = 35.43

TYPE OF MATERIAL	Throughput LBS/HR	Throughput TON/HR	Control Device:	36-DC-5	Control Efficiency:	98.90%
Metal	30000	15				

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx lbs/ton metal charged	NOx lbs/ton metal charged	VOC lbs/ton metal charged	CO lbs/ton metal charged	Lead lbs/ton metal charged
	3.2	2.24	0.00	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/hr	48.0	33.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	1152.0	806.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**210.2**	**147.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	0.53	0.37	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	12.7	8.9	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**2.3**	**1.62**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-50
Raw Sand Storage Silo

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 10
E (lb/hr) = 19.18

TYPE OF MATERIAL	Maximum Throughput LBS/HR	Maximum Throughput TON/HR	Control Device:	39-DC-5	Control Efficiency:	98.90%
Sand	20000	10				

Limited Throughput TONS/HR
4.86

	PM lbs/ton sand handled	PM10 lbs/ton sand handled	SOx lbs/ton sand handled	NOx lbs/ton sand handled	VOC lbs/ton sand handled	CO lbs/ton sand handled	Lead lbs/ton sand handled
	3.6	0.54	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	36.0	5.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	864.0	129.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**157.7**	**23.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	0.19	0.03	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	4.61	0.69	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**0.84**	**0.13**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

SCC# 3-04-003-50
Spent Sand Storage Silo

Maximum Throughput TONS/HR: 10

Control Device: 39-DC-5
Control Efficiency: 98.90%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P = 10
E (lb/hr) = 19.18

TYPE OF MATERIAL	
Sand	10

	PM lbs/ton sand handled	**PM10** lbs/ton sand handled	**SOx** lbs/ton sand handled	**NOx** lbs/ton sand handled	**VOC** lbs/ton sand handled	**CO** lbs/ton sand handled	**Lead** lbs/ton sand handled
	3.6	0.54	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	36.0	5.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	864.0	129.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**157.7**	**23.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	0.40	0.06	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	9.50	1.42	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**1.73**	**0.26**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

SCC# 3-04-003-50
Sand Conveyor

Maximum Throughput TONS/HR: 10

Control Device: 39-DC-5
Control Efficiency: 89.91%

326 IAC 6-3-2 Allowable PM Emission Calculation:
E = 4.1 * (P^0.67) for P<30 tons/hr
P (including sand & metal) = 25
E (lb/hr) = 35.43

TYPE OF MATERIAL	
Sand	10

	PM lbs/ton sand handled	**PM10** lbs/ton sand handled	**SOx** lbs/ton sand handled	**NOx** lbs/ton sand handled	**VOC** lbs/ton sand handled	**CO** lbs/ton sand handled	**Lead** lbs/ton sand handled
	3.6	0.54	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/hr	36.0	5.4	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions lbs/day	864.0	129.6	0.0	0.0	0.0	0.0	0.0
Potential Uncontrolled Emissions tons/year	**157.7**	**23.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Potential Controlled Emissions lbs/hr	3.6	0.5	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions lbs/day	87.2	13.1	0.0	0.0	0.0	0.0	0.0
Potential Controlled Emissions tons/year	**15.9**	**2.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Note: Emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.23.

Appendix A: Emission Calculations
HAP Emissions from Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

** Process Emissions **

Process	Maximum Rate (tons iron/hr)	Limited Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Control Device	Control Efficiency (%)
Charge Handling	20	8.13	chromium	0.00023	0.02	0.00	39-DC-4	59.40%
SCC# 3-04-003-15			nickel	0.00040	0.04	0.01	39-DC-4	59.40%
AP-42 Ch. 12.10			arsenic	0.00008	0.01	0.00	39-DC-4	59.40%
			Lead	0.00231	0.20	0.03	39-DC-4	59.40%
			Manganese	0.01860	1.63	0.27	39-DC-4	59.40%
			Antimony	0.00111	0.10	0.02	39-DC-4	59.40%
			TOTAL		**1.99**	**0.33**		
Melting - Electric	20	8.13	chromium	0.00010	0.01	0.00	N/A	
Induction Furnaces*			nickel	0.00017	0.01	0.01		
EPA SCC# 3-04-003-03			arsenic	0.00003	0.00	0.00		
AP-42 Ch. 12.10			Lead	see App. A, page 5	see App. A, page 5	see App. A, page 5		
			Manganese	0.00790	0.69	0.28		
			Antimony	0.00047	0.04	0.02		
			TOTAL		**0.76**	**0.31**		
A-Line Pouring	24.0	8.13	chromium	0.00160	0.17	0.06	N/A	
SCC# 3-04-003-18			nickel	0.00281	0.30	0.10		
			arsenic	0.00055	0.06	0.02		
			Lead	0.01617	1.70	0.58		
			Manganese	0.13020	13.69	4.64		
			Antimony	0.00777	0.82	0.28		
			TOTAL		**16.72**	**5.66**		
A-Line Cooling	24.0	8.13	chromium	0.00160	0.17	0.06	N/A	
SCC# 3-04-003-18			nickel	0.00281	0.30	0.10		
			arsenic	0.00055	0.06	0.02		
			Lead	0.01617	1.70	0.58		
			Manganese	0.13020	13.69	4.64		
			Antimony	0.00777	0.82	0.28		
			TOTAL		**16.72**	**5.66**		
A-Line Shakeout	24.0	8.13	chromium	0.00122	0.13	0.00	36-1-DC-8	89.10%
SCC# 3-04-003-31			nickel	0.00214	0.22	0.01	36-1-DC-8	89.10%
AP-42 Ch. 12.10			arsenic	0.00042	0.04	0.00	36-1-DC-8	89.10%
			Lead	0.01232	1.30	0.05	36-1-DC-8	89.10%
			Manganese	0.09920	10.43	0.38	36-1-DC-8	89.10%
			Antimony	0.00592	0.62	0.02	36-1-DC-8	89.10%
			TOTAL		**12.74**	**0.47**		
B-Line Pouring	9.0	3.60	chromium	0.00160	0.06	0.03	N/A	
SCC# 3-04-003-18			nickel	0.00281	0.11	0.04		
			arsenic	0.00055	0.02	0.01		
			Lead	0.01617	0.64	0.25		
			Manganese	0.13020	5.13	2.05		
			Antimony	0.00777	0.31	0.12		
			TOTAL		**6.27**	**2.51**		
B-Line Cooling	9.0	3.60	chromium	0.00160	0.06	0.03	N/A	
SCC# 3-04-003-18			nickel	0.00281	0.11	0.04		
			arsenic	0.00055	0.02	0.01		
			Lead	0.01617	0.64	0.25		
			Manganese	0.13020	5.13	2.05		
			Antimony	0.00777	0.31	0.12		
			TOTAL		**6.27**	**2.51**		
B-Line Shakeout	9.0	3.60	chromium	0.00122	0.05	0.00	36-1-DC-7	79.20%
SCC# 3-04-003-31			nickel	0.00214	0.08	0.01	36-1-DC-7	79.20%
AP-42 Ch. 12.10			arsenic	0.00042	0.02	0.00	36-1-DC-7	79.20%
			Lead	0.01232	0.49	0.04	36-1-DC-7	79.20%
			Manganese	0.09920	3.91	0.32	36-1-DC-7	79.20%
			Antimony	0.00592	0.23	0.02	36-1-DC-7	79.20%
			TOTAL		**4.78**	**0.40**		
Floor Pouring	6.0	N/A	chromium	0.00160	0.04	0.04	N/A	
SCC# 3-04-003-18			nickel	0.00281	0.07	0.07		
			arsenic	0.00055	0.01	0.01		
			Lead	0.01617	0.42	0.42		
			Manganese	0.13020	3.42	3.42		
			Antimony	0.00777	0.20	0.20		
			TOTAL		**4.18**	**4.18**		
Floor Cooling	6.0	N/A	chromium	0.00160	0.04	0.04	N/A	
SCC# 3-04-003-18			nickel	0.00281	0.07	0.07		
			arsenic	0.00055	0.01	0.01		
			Lead	0.01617	0.42	0.42		
			Manganese	0.13020	3.42	3.42		
			Antimony	0.00777	0.20	0.20		
			TOTAL		**4.18**	**4.18**		

Appendix A: Emission Calculations
HAP Emissions from Foundry Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

** Process Emissions (cont'd.)* *

Process	Maximum Rate (tons iron/hr)	Limited Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac (ton/yr)	Control Device	Control Efficiency (%)
Floor Shakeout	6.0	N/A	chromium	0.00122	0.03	0.03	N/A	
SCC# 3-04-003-31			nickel	0.00214	0.06	0.06		
AP-42 Ch. 12.10			arsenic	0.00042	0.01	0.01		
			Lead	0.01232	0.32	0.32		
			Manganese	0.09920	2.61	2.61		
			Antimony	0.00592	0.16	0.16		
			TOTAL		**3.19**	**3.19**		
Floor Knockout	15.0	N/A	chromium	0.00122	0.08	0.02	8-DC-2	79.20%
SCC# 3-04-003-31			nickel	0.00214	0.14	0.03	8-DC-2	79.20%
AP-42 Ch. 12.10			arsenic	0.00042	0.03	0.01	8-DC-2	79.20%
			Lead	0.01232	0.81	0.17	8-DC-2	79.20%
			Manganese	0.09920	6.52	1.36	8-DC-2	79.20%
			Antimony	0.00592	0.39	0.08	8-DC-2	79.20%
			TOTAL		**7.96**	**1.66**		
Scrap Handling	15	N/A	chromium	0.00122	0.08	0.00	39-DC-5	98.90%
Rotary Reclaimer			nickel	0.00214	0.14	0.00	39-DC-5	98.90%
SCC# 3-04-003-31			arsenic	0.00042	0.03	0.00	39-DC-5	98.90%
AP-42 Ch. 12.10			Lead	0.01232	0.81	0.01	39-DC-5	98.90%
			Manganese	0.09920	6.52	0.07	39-DC-5	98.90%
			Antimony	0.00592	0.39	0.00	39-DC-5	98.90%
			TOTAL		**7.96**	**0.09**		
Wheelabrator Shot Blast	31	8.13	chromium	0.00646	0.88	0.00	36-DC-8	97.90%
SCC# 3-04-003-40			nickel	0.01139	1.55	0.01	36-DC-8	97.90%
AP-42 Ch. 12.10			arsenic	0.00221	0.30	0.00	36-DC-8	97.90%
			Lead	0.06545	8.89	0.05	36-DC-8	97.90%
			Manganese	0.52700	71.56	0.39	36-DC-8	97.90%
			Antimony	0.03145	4.27	0.02	36-DC-8	97.90%
			TOTAL		**87.44**	**0.48**		
Chill Iron Shot Blast	0.06	N/A	chromium	0.00646	0.00	0.000	8-DC-2	79.20%
SCC# 3-04-003-40			nickel	0.01139	0.00	0.001	8-DC-2	79.20%
AP-42 Ch. 12.10			arsenic	0.00221	0.00	0.000	8-DC-2	79.20%
			Lead	0.06545	0.02	0.004	8-DC-2	79.20%
			Manganese	0.52700	0.14	0.029	8-DC-2	79.20%
			Antimony	0.03145	0.01	0.002	8-DC-2	79.20%
			TOTAL		**0.17**	**0.035**		

* Note: HAP emission factors for the electric induction furnaces are based on the PM10 emission factor from in-house stack test performed on May 8, 2001 and percent of PM10 that is HAP based on information from SPECIATE, v 3.1.
All other HAP emission factors are based on the AP-42 emission factors for PM and the percent of PM that is HAP based on information from SPECIATE, v 3.1.

	Total Potential Emissions Before Controls		**Total Limited Emissions After Controls**	
chromium	1.82	tons/year	0.32	tons/year
nickel	3.21	tons/year	0.56	tons/year
arsenic	0.63	tons/year	0.11	tons/year
Lead	18.35	tons/year	3.19	tons/year
Manganese	148.48	tons/year	25.93	tons/year
Antimony	8.86	tons/year	1.55	tons/year
Total	**181.35**	**tons/year**	**31.65**	**tons/year**

Methodology:
Ef = Emission factor
Ebc = Potential Emissions before controls = Rate (units/hr) x Ef(lbs/unit) x 8760 hrs/yr / 2000 lbs/hr
Eac = Potential Emissions after controls = (1-effiency/100) x Ebc
1 lb = 2000 tons

Appendix A: Grey Iron Foundry Operations
VOC and HAP Emission Calculations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: June 25, 1998

Material	Usage Rate (lbs/hr)	Limited Usage Rate (lbs/hr)	Weight % VOC	Weight % Phenol	Weight % Formaldehyde	Weight % MDI	Weight % Naphthalene	Weight % Triethylamine	Weight % Perchloro-ethylene	Weight % Xylene	Weight % Cumene (Isopropyl-benzene)	Weight % Methanol	VOC Emissions (ton/yr)	Phenol Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	MDI Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Triethylamine Emissions (ton/yr)	Perchloro-ethylene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Methanol Emissions (ton/yr)
Isocure Core Making																						
Resin I	105.0	N/A	N/A	6.62%	0.15%	0.00%	1.40%	0.00%	0.00%	0.00%	0.00%	0.00%	see page 12	0.00	0.01	0.00	0.21	0.00	0.00	0.00	0.00	0.00
Resin II	100.0	N/A	N/A	0.00%	0.00%	39.25%	1.11%	0.00%	0.00%	0.00%	0.00%	0.00%	see page 12	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.00	0.00
Catalyst	16.3	N/A	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	71.39	0.00	0.00	0.00	0.00	71.39	0.00	0.00	0.00	0.00
Release Agent	1.1	N/A	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Metal Cleaner	2.0	N/A	32.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pepset Core/Mold Making																						
Resin I (1600 Resin)	168.0	52.7	N/A	7.50%	0.17%	0.00%	0.00%	0.00%	0.00%	1.70%	0.00%	0.00%	see page 13	0.00	0.03	0.00	0.00	0.00	0.00	0.73	0.00	0.00
Resin II (2600 Resin)	150.0	47.1	N/A	0.00%	0.00%	32.85%	2.70%	0.00%	0.00%	0.00%	0.00%	0.00%	see page 13	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00
Catalyst	9.2	2.9	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.89%	2.09%	0.00%	40.21	0.00	0.00	0.00	0.00	0.00	0.00	1.97	0.84	0.00
Parting Spray	1.1	0.35	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	99.90%	0.00%	0.00%	0.00%	4.86	0.00	0.00	0.00	0.00	0.00	4.86	0.00	0.00	0.00
Warm Box Mixer #1 and Core Machine #1																						
Resin*	55.4	N/A	0.00%	0.00%	1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Catalyst	9.9	N/A	47.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	47.29%	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.50
Warm Box Mixer #1 and Core Machine #2																						
Resin*	55.4	N/A	0.00%	0.00%	1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Catalyst	9.9	N/A	47.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	47.29%	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.50
Warm Box Mixer #2 and Core Machine #3																						
Resin*	55.4	N/A	0.00%	0.00%	1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Catalyst	9.9	N/A	47.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	47.29%	20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.50
High Speed Continuous Sand Mixer																						
Part I Binder	72.9	N/A	N/A	10.00%	0.10%	0.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00%	see page 12	0.00	0.01	0.00	0.00	0.00	0.00	0.56	0.00	0.00
Part II Binder	64.5	N/A	N/A	0.00%	0.00%	40.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	see page 12	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
Reduction Factors for Core Making													**185.63**	**0.00**	**0.05**	**0.00**	**1.90**	**71.39**	**4.86**	**3.26**	**0.84**	**61.49**

Total Potential HAP Emissions: **143.78**

Pollutant	Isocure Release Factor	Pepset Release Factor	Warm Box Release Factor	Mixer Release Factor
Phenol	0.00%	0.00%	N/A	0.00%
Formaldehyde	2.00%	2.00%	5.00%	2.00%
MDI	0.00%	0.00%	N/A	0.00%
Naphthalene	3.25%	5.85%	N/A	5.85%
Xylene	N/A	5.85%	N/A	5.85%
Methanol	N/A	N/A	100.00%	N/A

Isocure Line VOC Control Eff.	Pepset Line Usage Limitation									
89.10%	31.39%	**84.26**	**0.00**	**0.00**	**0.00**	**0.00**	**7.78**	**1.52**	**0.62**	**0.26**	**61.49**

Total Controlled/Limited HAP Emissions from Core Machines: **71.68**

0.00	**0.03**	**0.00**	**1.19**	**0.00**	**0.00**	**0.79**	**0.00**	**0.00**

Total Controlled/Limited HAP Emissions from Sand Mixers: **2.01**

Note:
Resin emissions are accounted for at the sand mixers used for each core making process.
* Although the resin used in the Warm Box core making contains formaldehyde, the formaldehyde reacts under acidic conditions and forms new products that are not VOCs or HAPs. Therefore, no formaldehyde or VOC is released to the atmosphere.

METHODOLOGY

Core Making VOC/HAP Emissions from Resins = Max. Hourly Usage Rate * % VOC/HAP * Release Factor * 8760 hrs/yr * 1 ton/2000 lbs
Core Making VOC/HAP Emissions from Catalyst, Parting Spray, and Metal Cleaner = Max. Hourly Usage Rate * % VOC/HAP * 8760 hrs/yr * 1 ton/2000 lbs
Reduction factors obtained from the American Foundrymen's Society Publication entitled "Form R Reporting of Binder Chemicals used in Foundries".

Company Name: Weil-McLain
Plant Location: 500 Blaine Street, Michigan City, IN 46360-2388
County: LaPorte
Permit Reviewer: Trish Earls
Title V #: T091-6295
Plt. ID #: 091-00020

Core Making Process

Machine	Date of Construction	Capacity (tons cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Max. Catalyst Usage (lb/ton cores)	Potential VOC Emissions from resin evap (tons/yr)	Potential VOC Emissions from Catalyst Usage (tons/yr)	Total Potential VOC Emissions (tons/yr)
Isocure Core Machine	1975	5.8	1.0%	1	2.8	25.40	71.13	96.54
Pepset Core Machine	1979	6	1.8%	1.8	1.53	47.30	40.21	87.51
Warm Box Core Machine #1	1971	1.73	1.0%	0	5.7	0.00	20.43	20.43
Warm Box Core Machine #2	1976	1.73	1.0%	0	5.7	0.00	20.43	20.43
Warm Box Core Machine #3	1971	1.73	1.0%	0	5.7	0.00	20.43	20.43
High Speed Cont. Sand Mixer	2001	42	1.8%	1.8	N/A	331.13	0.00	331.13
Total						**403.84**	**172.61**	**576.45**

Note: The resin used in the Warm Box Core Machines reacts under acidic conditions and forms new products that are not VOCs. Therefore, there are no VOC emissions from the resin.
Also, the catalyst used in the Warm Box Core Machines contains a maximum of 47.29% VOC, therefore, VOC emissions represent the max. usage * 0.4729.

Limits Necessary to render 326 IAC 2-2 (PSD) not applicable:

Core Machines	VOC limit (tons/yr)	VOC EF for resin evaporation (lb/ton cores)	VOC EF for resin evaporation (lb VOC/lb resin)	Catalyst EF (lb VOC/ton cores)	core production (tons cores/yr)	Catalyst usage limit (lbs/yr)	resin usage limit (lbs/yr)
Isocure Core Machine	N/A	1	0.05	2.8	50,808	142,262	1,016,160
Pepset Core Machine	38.38	1.8	0.05	1.53	23,051	35,268	829,838
Warm Box Core Machine #1	N/A	0	0	5.7	15,155	86,382	303,096
Warm Box Core Machine #2	N/A	0	0	5.7	15,155	86,382	303,096
Warm Box Core Machine #3	N/A	0	0	5.7	15,155	86,382	303,096
High Speed Cont. Sand Mixer	24.9	1.8	0.05	N/A	27,667	N/A	996,000
Total					**146,990**	**436,678**	**3,751,286**

Core Machines	VOC Control Efficiency	Catalyst Controlled/Limited VOC Emissions (tons/yr)	Resin Controlled/Limited VOC Emissions (tons/yr)	Total Controlled/Limited VOC Emissions (tons/yr)
Isocure Core Machine	89.10%	7.75	25.40	33.16
Pepset Core Machine	0.00%	17.63	20.75	38.38
Warm Box Core Machine #1	0.00%	20.43	0.00	20.43
Warm Box Core Machine #2	0.00%	20.43	0.00	20.43
Warm Box Core Machine #3	0.00%	20.43	0.00	20.43
High Speed Cont. Sand Mixer	0.00%	0.00	24.90	24.90
TOTAL		**86.66**	**71.05**	**157.71**

Appendix A: Grey Iron Foundry Operations
VOC and HAP Emission Calculations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: June 25, 1998

Material	Usage Rate (lbs/hr)	Limited Usage Rate (lbs/hr)	Weight % VOC	Weight % Perchloro-ethylene	Potential VOC Emissions (ton/yr)	Perchloro-ethylene Emissions (ton/yr)	Limited VOC Emissions (ton/yr)	Limited Perchloro-ethylene Emissions (ton/yr)
Isocure Core Making								
Release Agent	1.1	N/A	100.00%	0.00%	4.85	0.00	4.85	0
Metal Cleaner	2.0	N/A	32.00%	0.00%	2.83	0.00	2.83	0
Pepset Core/Mold Making								
Parting Spray	1.1	0.35	100.00%	99.90%	4.86	4.86	1.53	1.52
					12.54	**4.86**	**9.21**	**1.52**

Isocure Line VOC Control Efficiency	Controlled VOC Emissions (tons/yr)	Controlled HAP Emissions (tons/yr)
89.10%	**2.36**	**1.52**

Appendix A: Potential Emissions Calculations
Natural Gas, No. 2 Distillate Fuel Oil, or Propane Combustion
10 < MM BTU/HR <100
Boiler Certification

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Heat Input Capacity MMBtu/hr	MMCF/yr	Potential Throughput kgals/year (No. 2 Fuel oil)	kgals/year (Propane)	S = Weight % Sulfur in No. 2 Fuel Oil
7.22	63.2	455.4	690.8	0.2

Heat Input Capacity includes:
Maximum capacity of boilers that are tested.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF (natural gas combustion)	1.9	7.6	0.6	100.0	5.5	84.0
Emission Factor in lb/kgal (No. 2 fuel oil combustion)	2.0	3.3	142S	20.0	0.34	5.0
Emission Factor in lb/kgal (Propane combustion)	0.4	0.4	0.10S	14.0	0.3	1.9
Potential Emissions burning natural gas, tons/yr	0.1	0.2	0.0	3.2	0.2	2.7
Potential Emissions burning No. 2 fuel oil, tons/yr	0.5	0.8	6.5	4.6	0.1	1.1
Potential Emissions burning Propane, tons/yr	0.1	0.1	0.0	4.8	0.1	0.7
Worst Case Potential Emissions, tons/yr	**0.5**	**0.8**	**6.5**	**4.8**	**0.2**	**2.7**

Methodology:
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Natural Gas Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors for natural gas combustion are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0
(SUPPLEMENT D 3/98)
Emissions from natural gas combustion (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
1 gallon of No. 2 Fuel Oil has a heating value of 138,805 Btu
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.138805 MM Btu
Emission Factors for No. 2 fuel oil combustion are from AP 42, Tables 1.3-2 and 1.3-4 (SCC 1-02-005-01/02/03)
Emission Factors for fuel oil combustion are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)
Emissions from fuel oil combustion (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton
1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MM Btu
Emission Factors for propane combustion are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)
Emissions from Propane combustion (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

Compliance with 326 IAC 6-2-4

The following calculation demonstrates compliance with the allowable PM emission limit of 0.6 lb/MMBtu pursuant to 326 IAC 6-2-4:

Potential PM emission rate = 0.5 tons/yr / 4.38 lb/hr / tons/yr / 7.216 MMBtu/hr
= 0.01 lb PM / MMBtu **(will comply)**

Compliance with 326 IAC 7-1.1-2

The following calculations determine the maximum sulfur content of #2 distillate fuel allowed by 326 IAC 7-1-.1-2:

0.5 lb/MMBtu x 138,805 Btu/gal = 69.4025 lb/1000 gal
69.4025 lb/1000 gal/ 142 lb/1000 gal = 0.5 %
Sulfur content must be less than or equal to 0.5 % to comply with 326 IAC 7-1.1-2.
Facility will comply with 326 IAC 7-1.1-2 by using fuel oil with a sulfur content less than 0.5%.

Appendix A: Potential Emissions Calculations
Natural Gas Combustion
<100 MMBtu/hr
Preheater

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
12.98	113.7

Heat Input Capacity includes:
one Preheater

	Pollutant					
	PM*	PM10*	SO2	NOx**	VOC	CO
Emission Factor in lb/MMCF (natural gas combustion)	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emissions, tons/yr	0.11	0.43	3.4E-02	5.68	0.31	4.77

Methodology:
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors for natural gas combustion are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0
(SUPPLEMENT D 3/98)
Emissions from natural gas combustion (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emission Calculations
Natural Gas Combustion
< 100 MMBtu/hr

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.4	12.3

Heat Input Capacity includes:
one (1) afterburner controlling VOC and HAP emissions from the Isocure core machine.

	Pollutant					
	PM*	PM10*	SO2	NOx**	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.01	0.05	0.00	0.61	0.03	0.52

Methodology:
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors for natural gas combustion are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-0
(SUPPLEMENT D 3/98)
Emissions from natural gas combustion (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: August 6, 2001

Material	Process	Density (Lb/Gal)	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
Black Paint	Spray Booth	8.5	71.36%	55.3%	16.1%	56.1%	23.69%	1.15300	3.10	1.36	1.57	37.63	6.87	3.06	5.74	75%
Butyl Cellosolve Solvent	Spray Booth	7.5	100.00%	0.0%	100.0%	0.0%	0.00%	0.00114	7.53	7.53	0.01	0.21	0.04	0.00	N/A	75%
Gray Paint	Dip Tank	10.1	58.47%	46.1%	12.4%	55.5%	26.97%	0.57711	2.79	1.24	0.72	17.22	3.14	0.00	4.61	100%
							Total Potential Emissions:				**2.29**	**55.06**	**10.05**	**3.06**		

	Control Efficiency:		Controlled	Controlled	Controlled	Controlled
	VOC	PM (Spray Booth)	VOC lbs per Hour	VOC lbs per Day	VOC tons per Year	PM tons/yr
Total Controlled Emissions:	N/A	90.00%	**2.29**	**55.06**	**10.05**	**0.31**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

HAP Emission Calculations

Material	Process	Density (Lb/Gal)	Weight % Glycol Ether	Gal of Mat. (gal/hr)	Potential Glycol Ether tons per year
Black Paint	Spray Booth	8.5	7.70%	1.15300	3.29
Butyl Cellosolve Solvent	Spray Booth	7.5	100.00%	0.00114	0.04
Gray Paint	Dip Tank	10.1	6.20%	0.57711	1.58

METHODOLOGY
HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Unpaved Roads

Company Name: Weil-McLain
Address City IN Zip: 500 Blaine Street, Michigan City, IN 46360-2388
Operating Permit No.: T091-6295
Plt ID: 091-00020
Reviewer: Trish Earls
Date: March 19, 2001

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and AP-42, Ch 11.2.1.

Semi-Tractor Trailers

0.125	trip/hr x	
0.1	mile/trip x	
2	(round trip) x	
8,760	hr/yr =	219 miles per year

Ef =	k*5.9*(s/12)*(S/30)*(W/3)^0.7*(w/4)^0.5*((365-p)/365)	
=	4.03	lb/mile
where k =	0.8	ze multiplier)
s =	4.8	% silt content of unpaved roads
p =	125	days of rain greater than or equal to 0.01 inches
S =	10	miles/hr vehicle speed
W =	27	tons average vehicle weight
w =	18	wheels

PM: 4.03 lb/mi x 219 mi/yr = / 2000 lb/ton = **0.44 tons/yr**

P M-10: 35% of PM = **0.15 tons/yr**